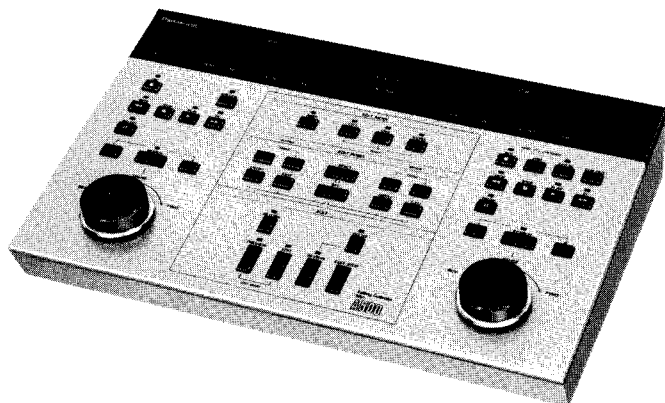


Service Manual

Summary
Schematic Diagrams
Exploded Views
Replacement Parts Lists

Editing Controller
NV-A500^{E-EN}
 Remote Controller
NV-A505^{E-EN}



NV-A500



NV-A505

SPECIFICATIONS for NV-A500

Power Source: DC 12V (supplied from video recorder)
 Power Consumption: 6W
 Controls
 Source-Unit Side: ON Line
 Editor-Unit Side: Edit, Cut-In, Cut-Out
 Source-Unit/
 Editor-Unit: Record, Fast Forward, Play, Rewind,
 Stop, Pause, Search, Plus, Minus,
 Search Dial
 Editing controls
 Editing Modes: Assembly, Insert (Audio CH1, CH2;
 Video)
 Edit Point
 Trimming: Set, Entry/Exit/Trim - /Trim +
 (source-unit/editor-unit), Reset
 Preview, Edit, Edit Stop, Return,
 Go-To, Review
 Editing Controls:
 Counter Display
 Time Indication: Max. ± 9 hr. 59 min. 59 sec. 25 frames
 (source-unit/editor-unit)
 Counter Display
 Selection: Entry Time/Exit Time Indication
 Connectors
 Remote Control
 Connector: 34-pin Remote Control Cable Connector
 (source-unit/editor-unit)
 Additional Source
 Connector: 20-pin ON-Line Cable Connector
 ON Line Output
 Connector: RCA Pin Jack, Open Collector output,
 OFF; less than DC 12V,
 ON; less than 10mA

(Continued on Page 1.)

SPECIFICATIONS for NV-A505

Power Source: DC 12V (supplied from video recorder)
 Power Consumption: 3W
 Compatible Video
 Recorders: VHS (1/2-inch) models:
 NV-8500, NV-8200, NV-8170
 U-vision (3/4-inch) models:
 NV-9600, NV-9240
 ON Line Output
 Connectors: RCA type jack open collector output,
 OFF; less than DC 12V,
 ON; less than 10mA
 VTR Start Input
 Connector: RCA type jack active low
 (operation at 0V)
 Operating
 Temperature: 41°F—104°F (5°C—40°C)
 Operating Humidity: 35%—80%
 Weight: Approx. 2.64 lbs. (1.2kg)
 Dimensions: 7-3/4"(W) $\times$ 2-7/8"(H) $\times$ 9-5/8"(D)
 195(W) $\times$ 73(H) $\times$ 243(D)mm
 Accessories Supplied: 1 pc. 34-pin Remote Control Connection
 Cable
 1 pc. 20-pin Interface Connection Cable

Weight and dimensions shown are approximate.
 Specifications are subject to change without notice.

Panasonic

Matsushita Electric Trading Co., Ltd.
 P.O. Box 288, Central Osaka Japan

INTRODUCTION

This service manual contains technical information which will allow service technicians to understand and service the Panasonic Editing Controller model NV-A500-E/EN and Remote Controller NV-A505-E/EN.

The NV-A500-E/EN and the NV-A505-E/EN have many special features as shown below.

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(NV-A500)

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(NV-A505)

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(Continued from Cover Page.)

Trigger Output	Terminal: RCA Pin Jack, Open Collector output OFF; less than DC 12V, ON; less than 10mA Pulse width about 1 sec.
Compatible VTR	Units: Basic System: NV-8500 Limited System: NV-9600, NV-9240, NV-8200, NV-8170
Connection Capability (number of units):	Up to 3 Source Units (for 2 or 3 units Remote Search Controller NV-A505 [option] or Multi-Source Switcher NV-J500 [optional] is connected) 1 Editor Unit

Editing Precision: Refer to table below

	NV-8500
Editing precision	± 2 frames

Operating	Temperature: 41°F ~ 104°F (5°C ~ 40°C)
Operating Humidity:	35% ~ 80%
Dimensions:	15-3/8"(W) × 2-7/8"(H) × 9-5/8"(D) 390(W) × 73(H) × 243(D)mm
Weight:	5.28 lbs. (2.4 kg)
Accessories Supplied:	2 pcs. 34-pin Remote Control Cable
(Continued on page 1.)	
(Continued from Cover page.)	
Weight and dimensions shown are approximate.	
Specifications are subject to change without notice.	

EDITING CONTROLLER NV-A500

FEATURES

1. Simple Alignment of Edit Points

Edit points can be easily located by using the Search Dial while viewing the image on a TV Monitor. The tape can be advanced in the forward (FWD) direction or in the reverse (REV) direction and the playback speed can be set across a range extending from still pictures to about 10 times the ordinary playback speed.

2. Trimming Function

The edit points can be changed directly by the trimming function without having to re-enter the edit points after they have been entered.

3. Ease of Operation

The feather-touch control buttons can be operated easily thanks to the logic circuit operation.

4. Sound-Based Error Indication

An electronic "beep" is heard whenever a mistake in the editing procedure is made.

5. LED Frame-Counter Display

The control signals entered on the tape are read out in hour/minute/second/frame units and displayed on the source/editor counter display.

6. Free Selection of Editing Modes

Insert and assembly-editing as well as two audio channels and a video channel, which can be combined for insert editing, offer a variety of editing capabilities.

7. Preview Editing

A rehearsal of the intended edit before actual recording allows accurate judgment of the finished effect prior to actual editing.

8. Editing Review

A review of the edited portion from the preroll point to one second after the edit is possible using the REVIEW mode. Following the review, the tape automatically returns to the final edit point and remains ready for the next edit.

9. Tape Protection

If the unit is left in the PAUSE mode for more than about 10 minutes, the automatic release function switches the unit to the slow motion playback mode in order to protect the tape and the video heads.

10. Editing of Video Camera Signals

A wide variety of audio and video editing functions is available if a video camera is connected.

11. Trigger Output Terminal

When starting the line input signals of a tape recorder or audio turntable, the trigger signal output at this jack appears 5 seconds before the edit start point.

12. Connection Systems

In addition to connection with a 3/4-inch video recorder (NV-9600 or NV-9240*) hook-up is also possible with a 1/2-inch recorder* (NV-8200 or NV-8170).

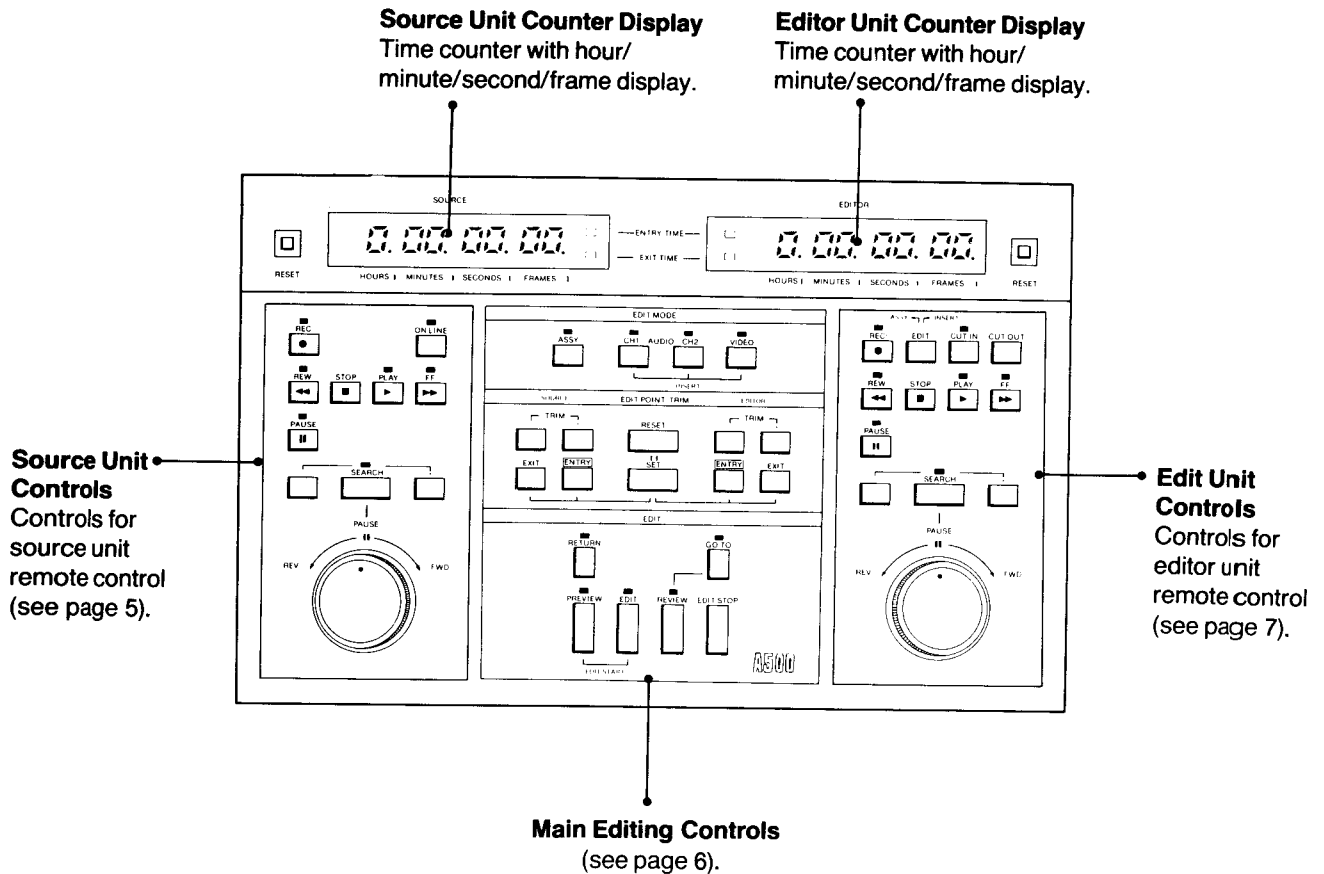
*The NV-9240, NV-8200 and NV-8170 are the source (playback) video recorders.

13. ON-Line Connection

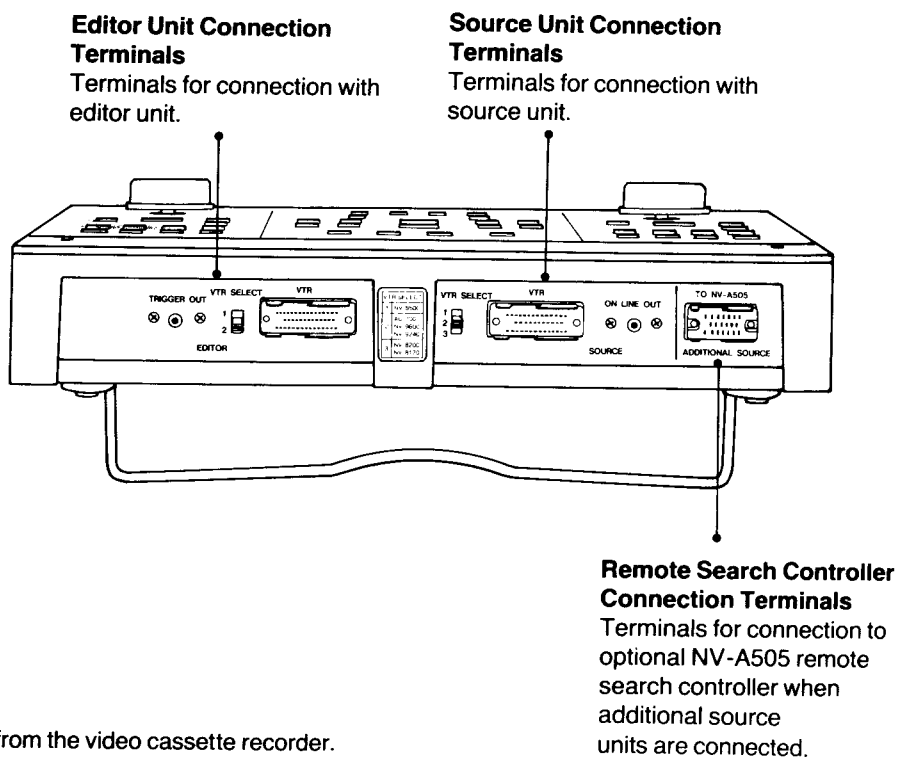
Up to three playback units can be connected simultaneously using the NV-A505 Remote Search Controller (option) and NV-J500 multi-source switcher (option).

CONTROLS AND THEIR FUNCTIONS

Major Operating Components

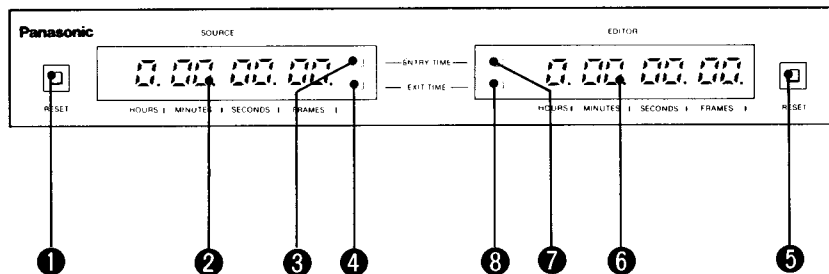
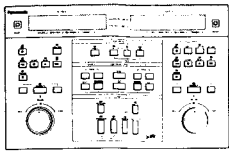


Rear Panel Connections (see page 8)



*Power is supplied from the video cassette recorder.

Counter Display



1 Reset Button [RESET]

Pressing this button resets the Source Unit Counter Display to "0" and also clears the entry and exit edit points.

2 Source Unit Counter Display*

This displays the tape position starting from the point at which the video cassette tape was loaded or from the point at which the Reset Button was pushed.

Edit point is indicated during trimming.

3 Entry Time Indicator Lamp [ENTRY TIME]

Lights when the Source Entry Button ②⑤ and Set Button ②⑦ (see page 6) are pressed simultaneously to enter the edit start point.

4 Exit Time Indicator Lamp [EXIT TIME]

Lights when the Source Exit Button ②⑥ and Set Button ②⑦ (see page 6) are pressed simultaneously to enter the edit end point.

5 Reset Button [RESET]

Pressing this button resets the Editor Unit Counter Display to "0" and also clears the entry and exit edit points.

6 Editor Unit Counter Display*

This displays the tape position starting from the point at which the video cassette tape was loaded or from the point at which the Reset Button was pushed.

Edit point is indicated during trimming.

7 Entry Time Indicator Lamp [ENTRY TIME]

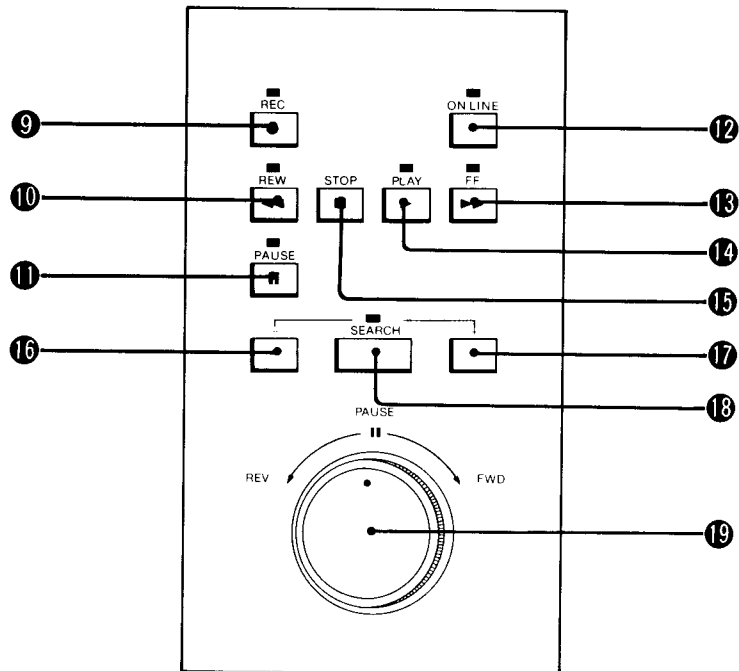
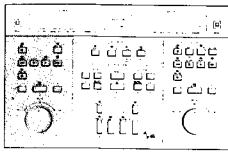
Lights when the Editor Entry Button ②⑤ and Set Button ②⑦ (see page 6) are pressed simultaneously to enter the edit start point.

8 Exit Time Indicator Lamp [EXIT TIME]

Lights when the Editor Exit Button ②⑥ and Set Button ②⑦ (see page 6) are pressed simultaneously to enter the edit end point.

*When the tape is rewound past the [0/00/00/00] point, the counter indicates a minus display.

Source Unit Controls



9 Record Button/Lamp [REC]

Video/audio recording starts when this button is pressed with the Play Button simultaneously.

Note:

When connection has been made to the NV-8170, no operation results even when the Record Button 9 and Play Button 14 are pressed simultaneously.

10 Rewind Button/Lamp [REW]

Used to rapidly rewind the tape.

11 Pause Button/Lamp [PAUSE]

Used to temporarily stop the tape. When the button is pressed during playback or recording, the tape stops temporarily. When the Pause Button (or the Play Button 14 during playback) is pressed again, the lamp goes out and the tape starts moving again.

12 ON Line Button/Lamp [ON LINE]

This button is not used when an editing is done with one editor unit and one source unit (the ON LINE lamp remains on). Press the ON Line Button to select the source unit used for editing when two or three source units have been connected and an editing system has been configured.

13 Fast Forward Button/Lamp [FF]

Used to rapidly advance the tape.

14 Play Button/Lamp [PLAY]

Used to play back recorded tapes.

15 Stop Button [STOP]

Used to stop all the operations of the source unit.

16 Minus Button [-]*

When this button is pressed in the pause mode, the picture on the TV monitor will back up one frame at a time.

This operation is not available for model NV-9600, NV-9240, NV-8200 and NV-8170.

17 Plus Button [+]*

When this button is pressed in the pause mode, the picture on the TV monitor will advance one frame at a time.

This operation is not available for model NV-9600 and NV-9240.

18 Search Button/Lamp [SEARCH]

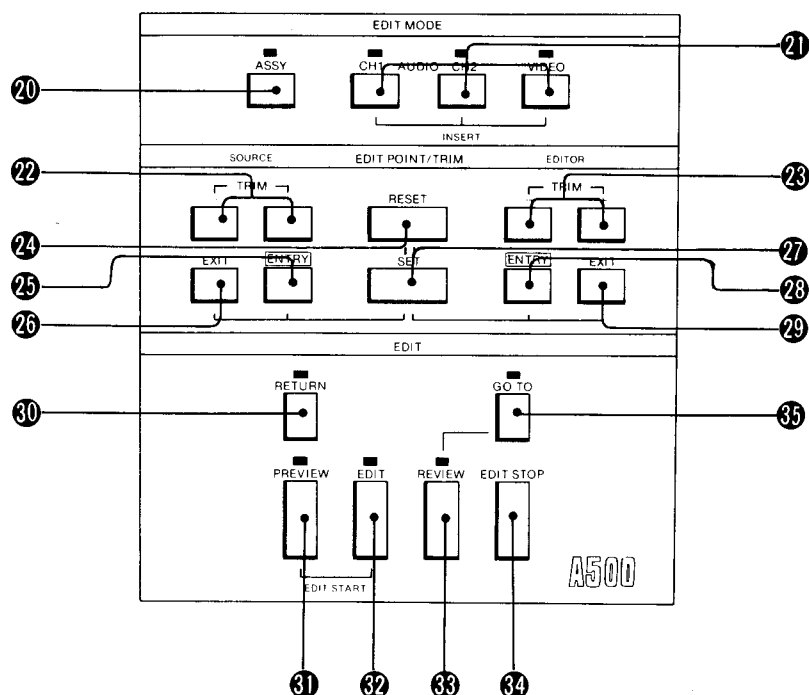
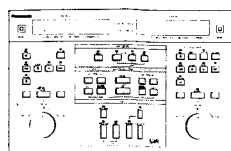
This button is used to search the edit points and other required pictures.

19 Search Dial*

This is operated to locate or examine program material. It is used in either the forward (FWD) or reverse (REV) mode. The tape speed can be varied between still picture and about 5 times normal playback speed.

*Refer to "Using the Search Dial" on page 25 when connecting the unit to the video cassette recorder.

Main Editing Controls



* 22, 25 and 26 are used for the source unit only.

20 Assembly Button/Lamp [ASSY]

Used to select Assembly Editing.

21 Insert Buttons/Lamps [INSERT]

CH1 Button [CH1]

Used to select audio channel 1 for insert-editing.

CH2 Button [CH2]

Used to select audio channel 2 for insert-editing.

Video Button [VIDEO]

Used to select the video signal for insert-editing.

22 Source Trim Plus/Minus Buttons [TRIM +/-]

Used to revise the source unit's edit points. When the [-] or [+] Button is pushed while pressing the Entry 25 or Exit Button 26, the Counter Display 2 will decrease or increase, respectively, by one frame each time the button is pressed.

23 Editor Trim Plus/Minus Buttons [TRIM +/-]

Used to revise the editor unit's edit points. When the [-] or [+] Button is pushed while pressing the Entry 28 or Exit Button 29, the Counter Display 6 will decrease or increase, respectively, by one frame each time the button is pressed.

24 Reset Button [RESET]

Used when an entered edit point is to be deleted.

The edit start (entry) or end (exit) point can be deleted by pressing this button together with the Entry Button or Exit Button.

25 Source Entry Button [ENTRY]

Used to enter the source unit's edit start point.

26 Source Exit Button [EXIT]

Used to enter the source unit's edit end point.

* 23, 28 and 29 are used for the editor unit only.

27 Set Button [SET]

Used to enter the edit points.

The edit start or end point can be entered by pressing this button together with the Entry Button or Exit Button.

28 Editor Entry Button [ENTRY]

Used to enter the editor unit's edit start point.

29 Editor Exit Button [EXIT]

used to enter the editor unit's edit end point.

30 Return Button/Lamp [RETURN]

Used to return the tape to the edit start point.

31 Preview Button/Lamp [PREVIEW]

Used to preview an edit before the edit is made.

32 Edit Button/Lamp [EDIT]

Used to make the actual edit. Editing starts when this button is pressed together with the Preview Button 31

33 Review Button/Lamp [REVIEW]

Used after the edit has been finished to confirm that the edited portion has been edited as desired.

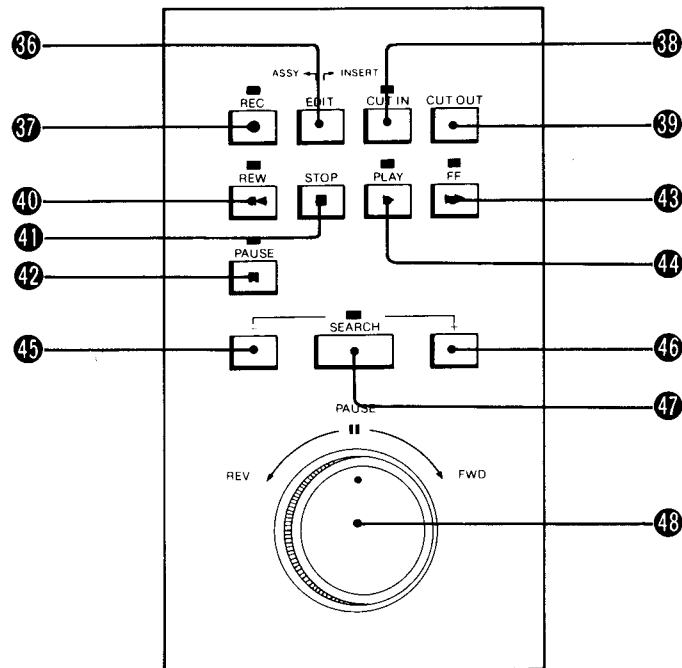
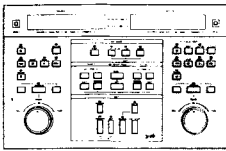
34 Edit Stop Button [EDIT STOP]

Used as the end of an edit. The point at which this button is pressed becomes the edit end point and the editing stops.

35 Go To Button/Lamp [GO TO]

Used to advance the tape to the edit end point.

Editor Unit Controls



36 Edit Button [EDIT]

Used for manual insert-editing or assembly-editing.

When this button is pressed together with the Record Button 37, assembly-editing begins.

When this button is pressed together with the Cut In Button 38, insert-editing begins.

37 Record Button/Lamp [REC]

Used together with the Play Button 44 to begin audio/video recording.

38 Cut-In Button/Lamp [CUT IN]

Used when starting an insert-edit or when monitoring the signals to be recorded.

39 Cut-Out Button [CUT OUT]

Used when manual insert-editing or assembly-editing is completed.

40 Rewind Button/Lamp [REW]

Used to rapidly rewind the tape.

41 Stop Button [STOP]

Used to stop all the operations of the editor unit.

42 Pause Button/Lamp [PAUSE]

Used to stop the tape temporarily. When this button is pressed during playback or recording, the Pause Lamp lights and the tape stops temporarily. When the Pause Button (or the Play Button 44 during playback) is pressed for a second time, the lamp goes out and the tape moves again.

43 Fast Forward Button/Lamp [FF]

Used to rapidly advance the tape.

44 Play Button/Lamp [PLAY]

Used to play back a recorded tape.

45 Minus Button [-]*

When this button is pressed in the pause mode, the picture on the TV monitor will back up one frame at a time.

This operation is not available for model NV-9600, NV-9240, NV-8200 and NV-8170.

46 Plus Button [+]*

When this button is pressed in the pause mode, the picture on the TV monitor will advance one frame at a time.

This operation is not available for model NV-8200 and NV-8170.

47 Search Button/Lamp [SEARCH]

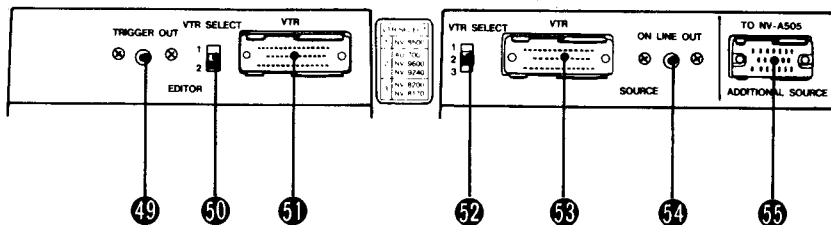
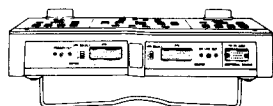
This button is used to search the edit points and other required pictures.

48 Search Dial*

This is operated to locate or examine program material. It is used in either the forward (FWD) or reverse (REV) mode. The tape speed can be varied between still picture and about 5 times normal playback speed.

*Refer to "Using the Search Dial" on page 15 when connecting the unit to the video cassette recorder.

Connection Facilities



* 49 ~ 51 are for the editor unit only.

* 52 ~ 55 are for the source unit only.

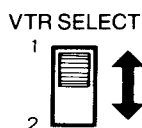
49 Trigger Output Terminal [TRIGGER OUT]

Used for starting the relay signal or tape recorder line signal automatically. Upon completion of preroll, this open collector output goes "Low".

For details, refer to "Trigger Output Terminal" on page 26.

50 VTR Selector Switch [VTR SELECT]

Set this switch in accordance with the type of video cassette recorder used as the editor unit.



VTR SELECT	
1	NV-8500
2	AU-700 NV-9600 NV-9240

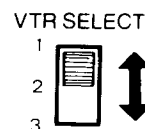
*The NV-9240, NV-8200 and NV-8170 cannot be used as the editor unit.

51 VTR Connector [VTR]

Connect to the Remote Control Connector on the editor unit using a 34-pin remote-control connection cable.

52 VTR Selector Switch [VTR SELECT]

Set this switch in accordance with the type of video cassette recorder used as the source unit.



VTR SELECT	
1	NV-8500
2	AU-700 NV-9600 NV-9240
3	NV-8200 NV-8170

53 VTR Connector [VTR]

Connect to the Remote Control Connector on the source unit using a 34-pin remote-control connection cable.

54 ON Line Output Jack [ON LINE OUT]

Connect this to the ON Line Input jack on the optional NV-J500 multi-source switcher when connecting two or three source units to compose an editing system.

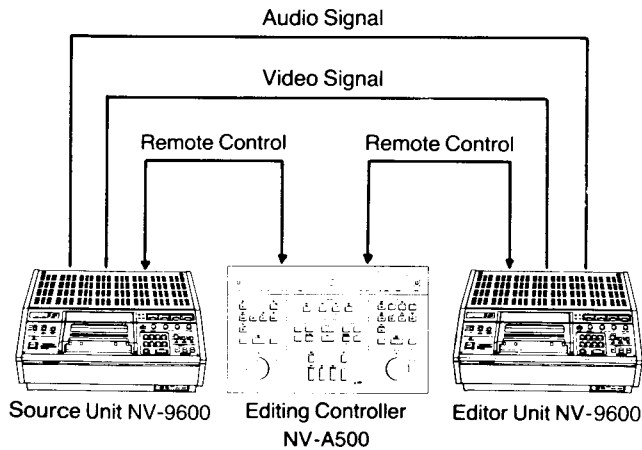
55 Additional Source Connector [ADDITIONAL SOURCE]

Connect this to the "TO NV-A500/NV-A505" Connector on the NV-A505 Remote Search Controller when using this optional controller and connecting a source unit.

EDITING SYSTEM COMBINATION I (BASIC)

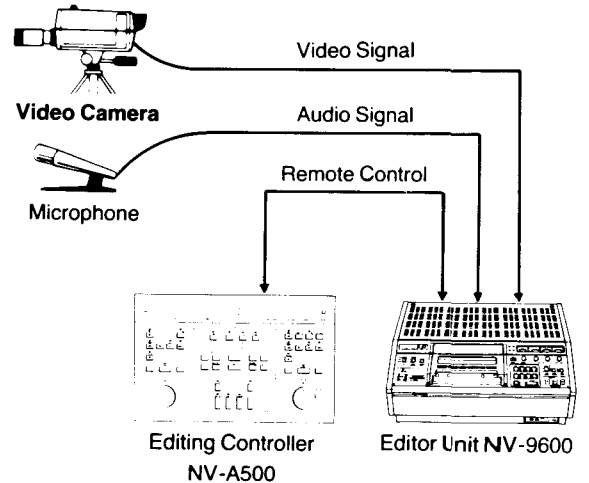
Tape-to-Tape Editing

This is the basic system for dubbing or editing between a source unit and editor unit when one source unit, one editor unit and the NV-A500 editing controller are used together.



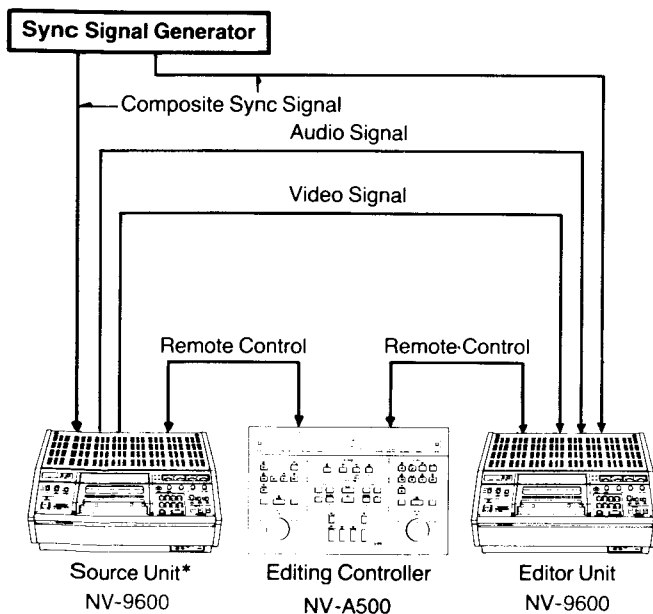
Video Camera Editing

This is the basic system for editing video signals from a video camera on the editor unit.



Applying External Sync

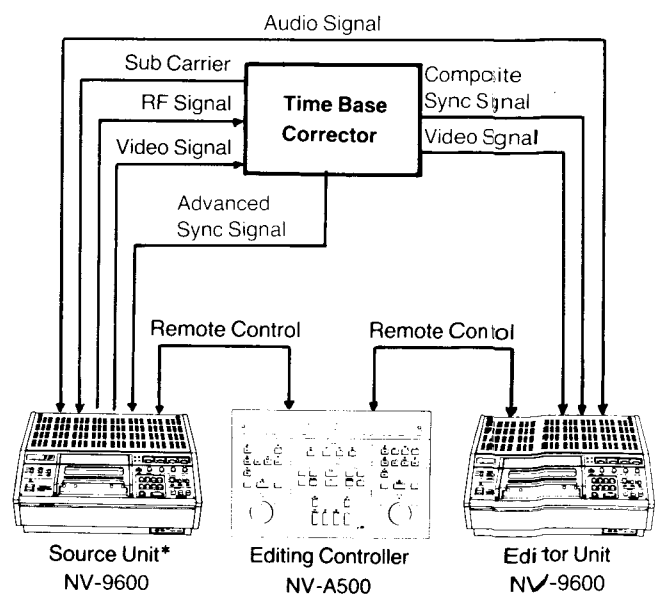
Provide the following system for stable editing using an external sync signal generator to provide the signal that synchronizes the whole system.



*NV-8200 and NV-8170 cannot be used.

Using a Time Base Corrector

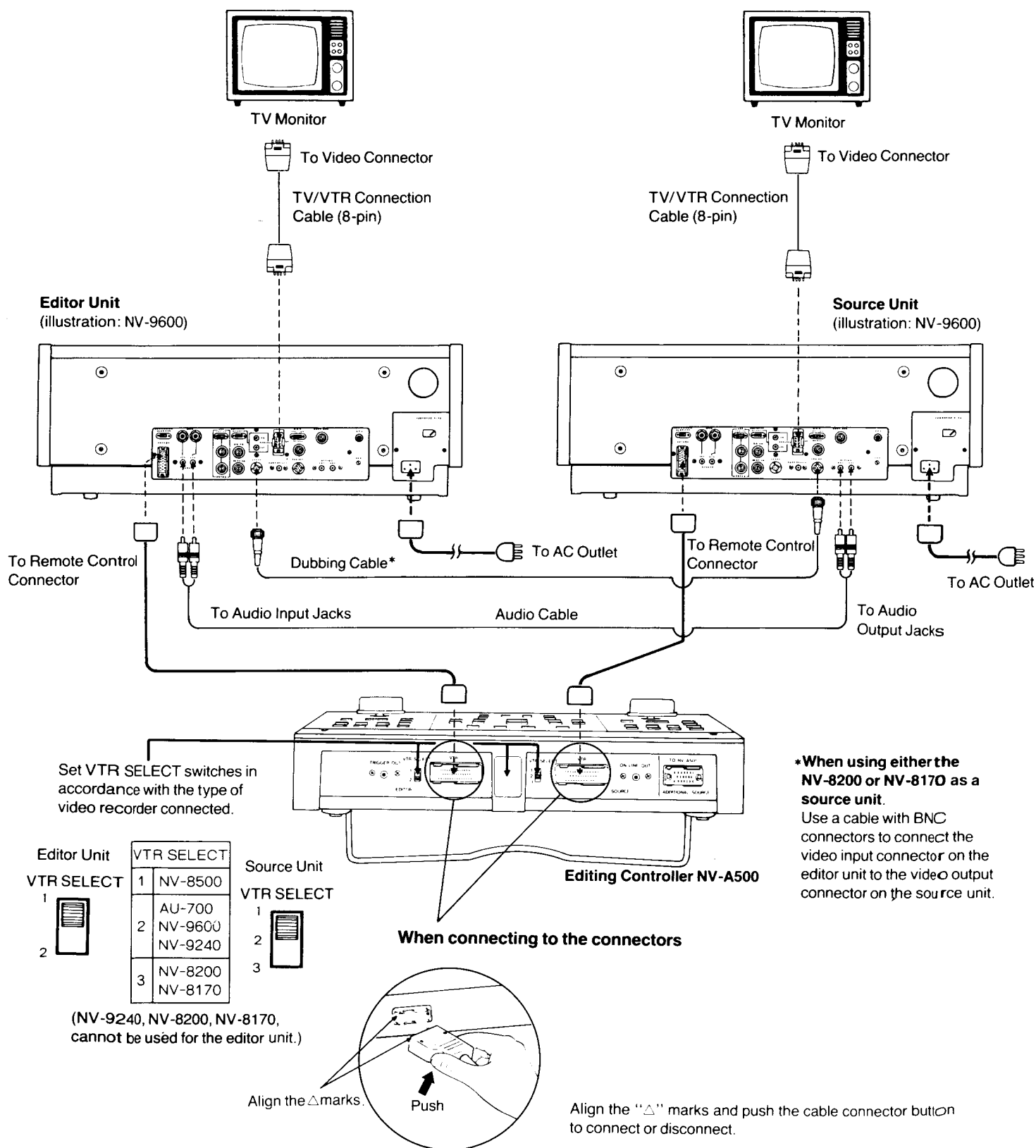
Provide the following system and use a time base corrector for editing material with minimal jitter.



For details on models which can be connected, refer to the sections on Switch Setting on page 11 and the VTR Selector Switches on page 25. The NV-9240, NV-8200 or NV-8170 cannot be used for the editor unit.

TAPE-TO-TAPE EDITING

Connections



Preparations

Source Unit Preparations

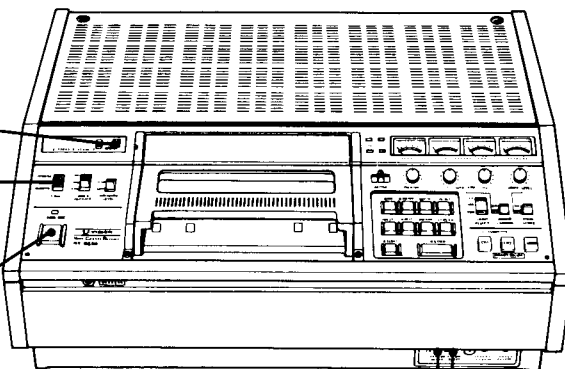
Switch Settings

Set Memory Switch to "OFF".

Set Sync Selector Switch to "INTERNAL".

Set this switch to "EXTERNAL" for use with external sync.

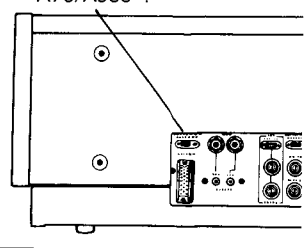
Turn Power Switch "ON".



Set Frame Servo Selector Switch to "OFF".

Set Video Mode Selector Switch to "AUTO".

*Set the rear-panel Controller Selector Switch to "A70/A960".



Editor Unit Preparations

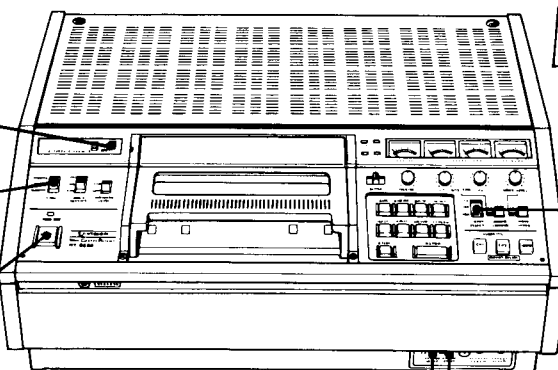
Switch Settings

Set Memory Switch to "OFF".

Set Sync Selector Switch to "NORMAL".

Set this switch to "EXTERNAL" with external sync.

Turn the Power Switch "ON".



Set the Input Selector Switch to "DUB".

*Set this switch to "LINE" for BNC connector signal.

Set Frame Servo Selector Switch to "ON".

Set Video Mode Selector Switch to "AUTO".

Follow the switch settings below when using any VHS video recorder NV-8200, NV-8170 as the Source Unit.

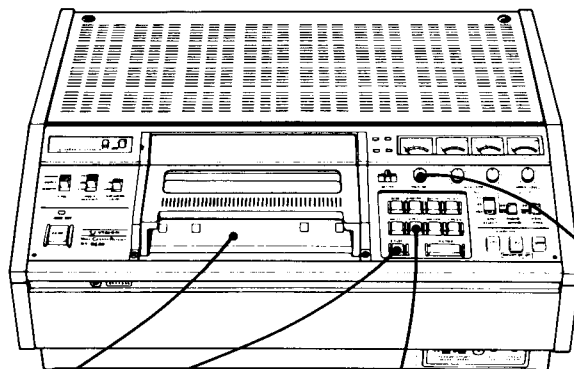
- Set the Power Switch to "ON".
- Set the Tape Memory Switch to "OFF".

- Set the TV/VTR Selector Switch to "VTR".
- Set the Timer Switch to "OFF".

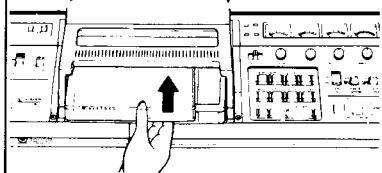
*When editing camera signals, set the Input Selector Switch to "LINE".

Preparations

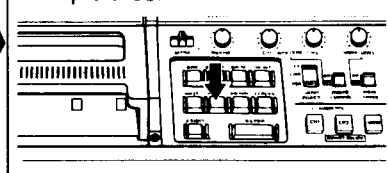
Source Unit



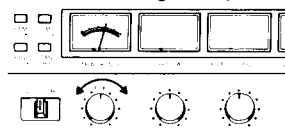
- (1) Push the Eject Button and load the prerecorded tape.



- (2) Press the Play Button and check the playback pictures.

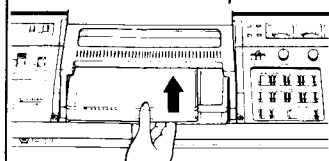


- (3) Adjust the Tracking Control. Rotate the Tracking Control until the meter pointer deflects as far to the right as possible.

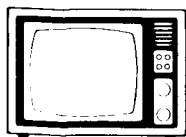


Editor Unit

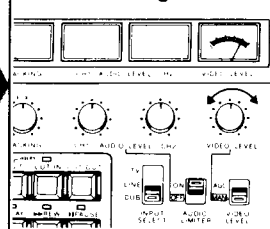
- (1) Push the Eject Button and load the tape.*



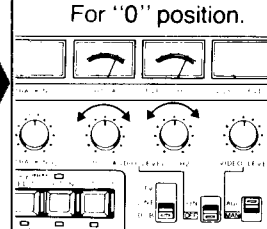
- (2) When the source unit is in the playback mode, its playback pictures appear on the TV monitor connected to the editor unit.



- (3) Adjust the video recording level.

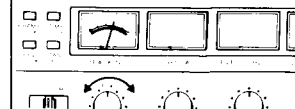


- (4) Adjust the audio recording level. For "0" position.

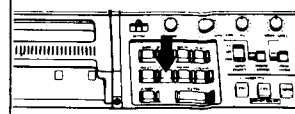


- (7) Pause the source unit and editor unit.

- (6) Adjust the Tracking Control.**



- (5) When editing a prerecorded cassette tape, press the Play Button of the editor unit and check the material.

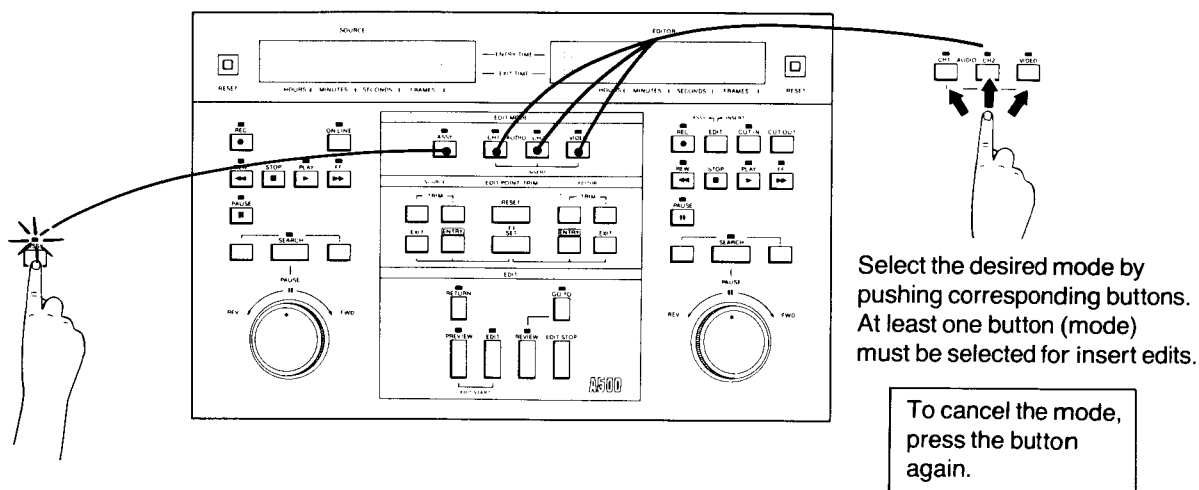


Notes:

*Check that the cassette tape's tab or red record button is still intact. Otherwise, editing is not possible.

**Adjust the skew and horizontal phase when using the NV-9600 as the editor unit.

(1) Select the editing mode



When the assembly-editing button is pressed:

The assembly editing mode is established.

Assembly editing is the simultaneous editing of both video signals and sound (channels 1 and 2) while composing a continuous new program.

[Example]

The picture and sound of [B] are recorded after picture [A]. As a result of this assembly editing, [B] follows [A].

When the insert-editing buttons are pressed:

The insert editing mode is established.

Insert editing refers to the insertion of new programs into existing material on a prerecorded tape. The video, audio channel 1 and audio channel 2 signals can be selected, respectively, and insert-editing conducted.

[Example]

Picture (or sound) [B'] is recorded instead of [B] in a [A] [B] [C] sequence. As a result of this insert-editing, the new sequence is [A] [B'] [C].

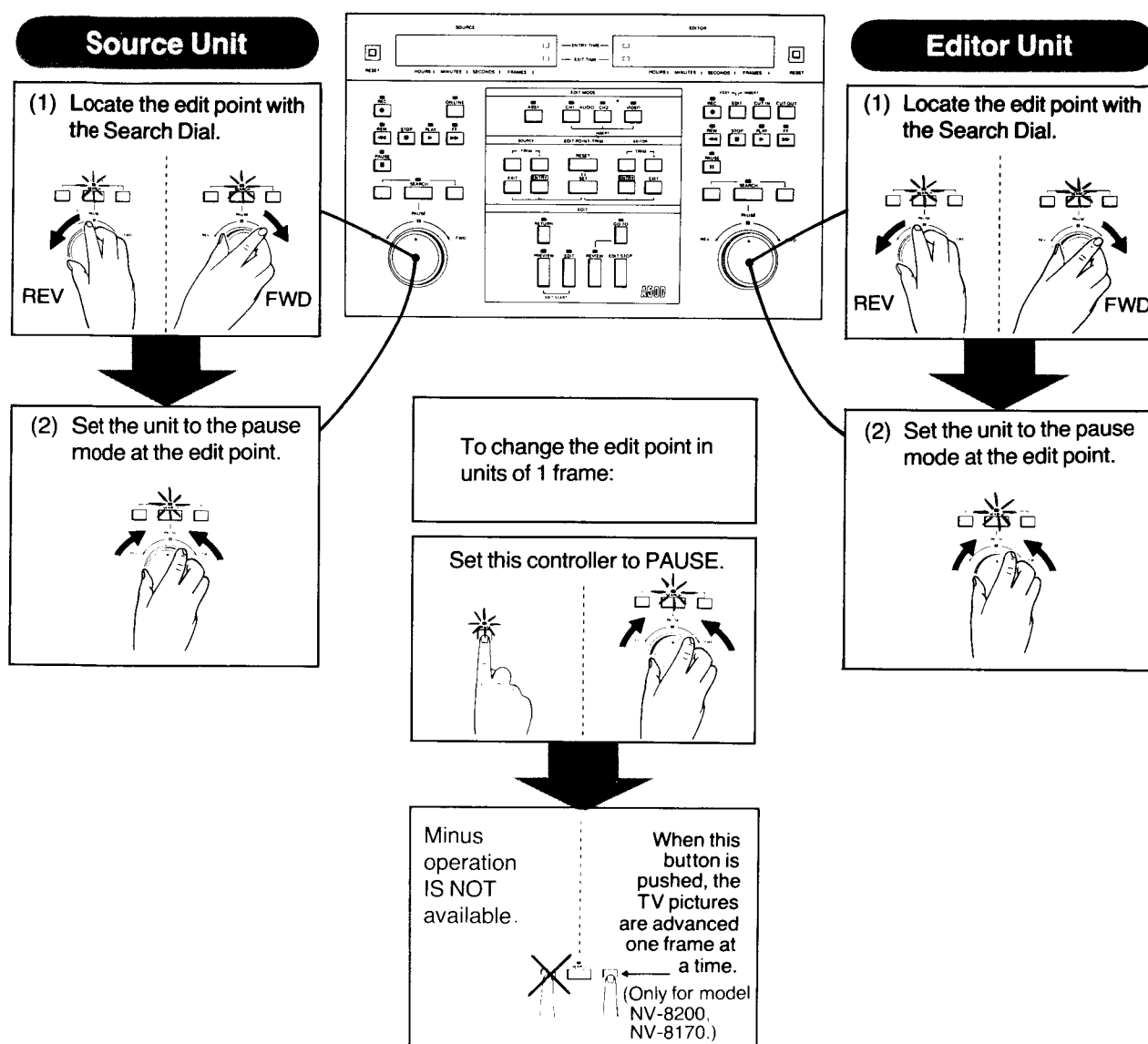
Insert-editing involves recording using the control signal of the prerecorded tape and **so it must be performed on a part of the tape where prerecorded material exists.**

Editing mode button operation

- The insert-editing mode is established when moving from ASSY to CH1, CH2, VIDEO.
- The assembly-editing mode is established when moving from CH1, CH2, VIDEO to ASSY.
- When CH1 is pressed again during insert-editing, the CH1 lamp goes off. The mode in which this lamp goes off is not selected.
- During insert-editing, insert editing mode can be changed but the editing mode cannot be established from insert to assembly (or assembly to insert).

(2) Searching for the edit point

The point to be edited is searched while viewing the TV monitor.



Note:

- The Search Dial is used to change the speed of the tape, depending on the video cassette recorder model, as shown in the table below.

Model	Reverse Direction	← 1 frame	Still picture	1 frame →	Forward Direction
NV-9600 NV-9240	Speed variable from 1/20–5 times normal playback speed	×	○	×	Speed variable from 1/20–5 times normal playback speed
NV-8200 NV-8170	Rewind (no playback)	1 frame advance	○	○	Speed variable from 1/5–2 times normal playback speed*

○ = Possible × = Not possible

*Set the playback speed control switch on the NV-8200 or NV-8170 to SLOW. If set to FAST, slow motion playback will not be possible.

- The video cassette recorder is automatically set to the slow motion playback mode when it has been in the pause mode for more than about 10 minutes. This is to protect the tape and video heads.

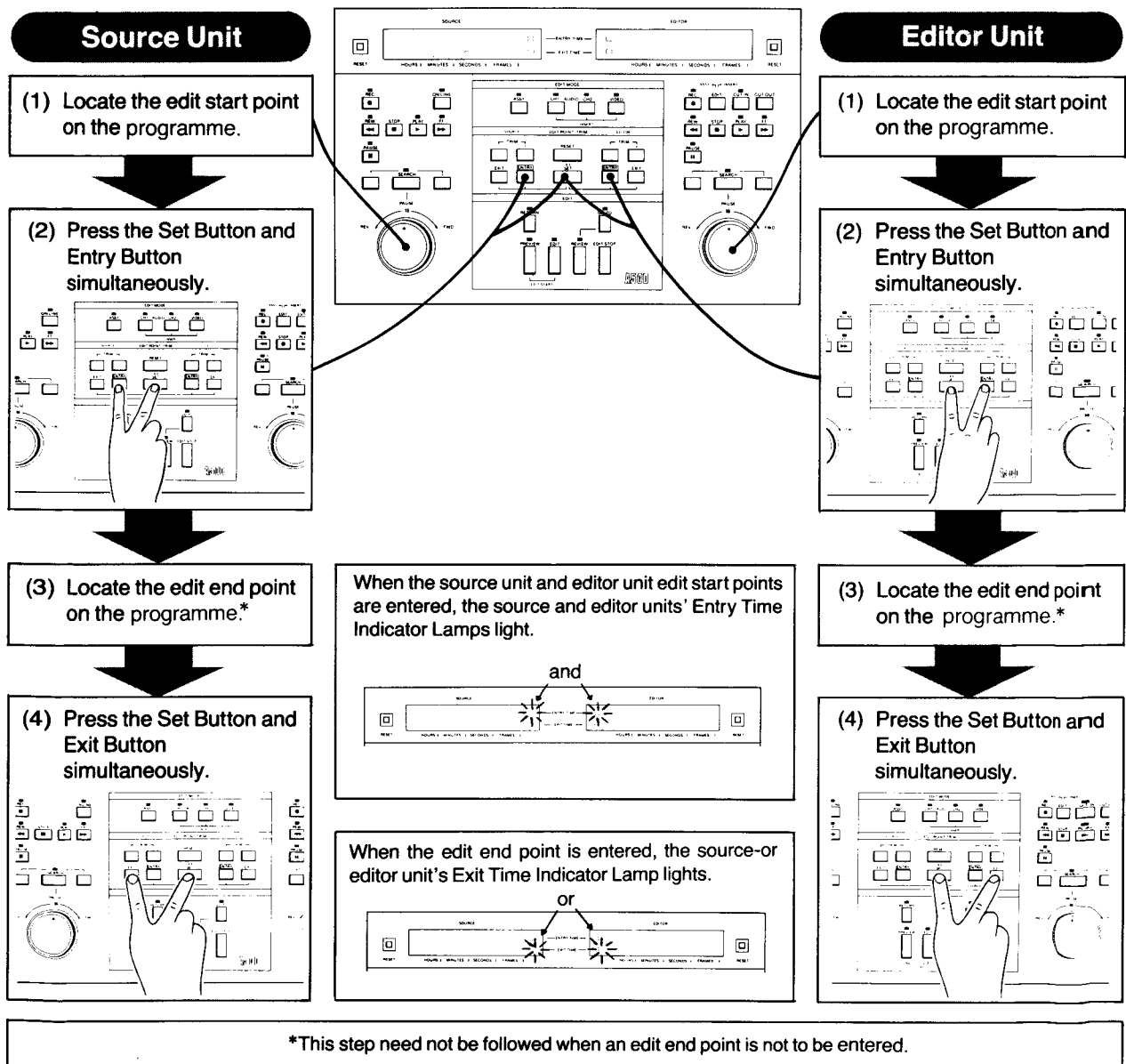
(3) Entry of the edit point

Assembly-editing

The following method is available to record the sound and video simultaneously of source unit [B'] programme to follow the editor unit [A] programme:

- 1) The end of [A] (edit start point), the start of [B'] (edit start point) and end of [B'] (edit end point*) are entered.
- 2) When recording the sound and video simultaneously of source unit [B'] programme during the editor unit [A] programme, the start (edit start point) and end (edit end point*) of the unrequired part of [A] and the start of [B'] (edit start point) are entered.

*Even though no edit end point has been entered, assembly-editing is to be completed by pressing the Edit Stop Button at your desired edit end point during editing.



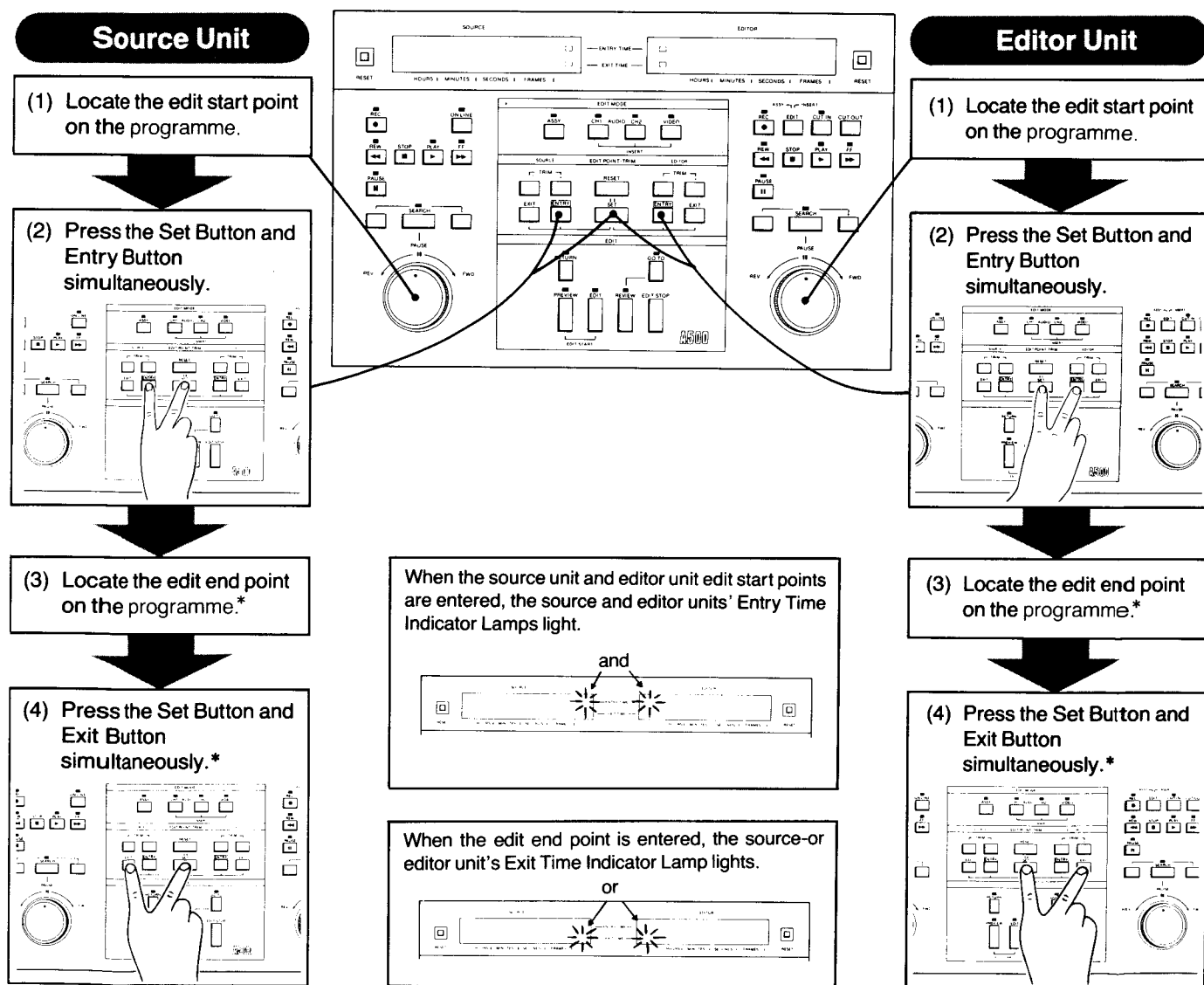
(3) Entry of the edit point

Insert-editing

The following two methods are available for replacing the sound and/or video of source unit programme [B'] into the sound or video of [B] in the editor unit programme sequence of [A] [B] [C]:

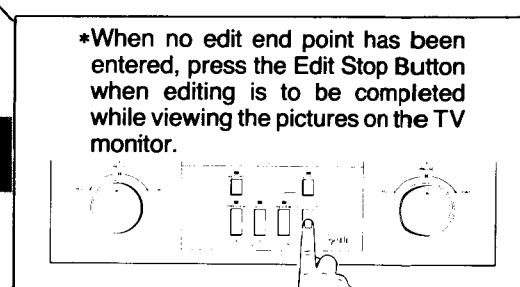
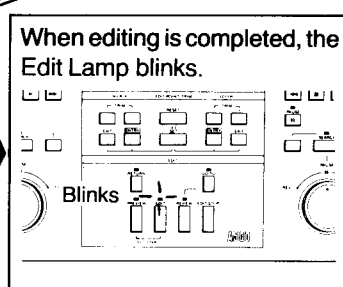
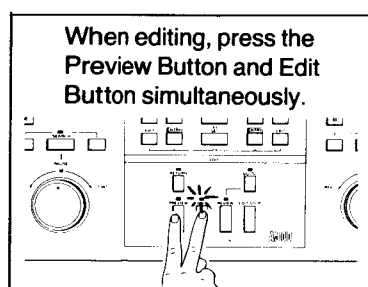
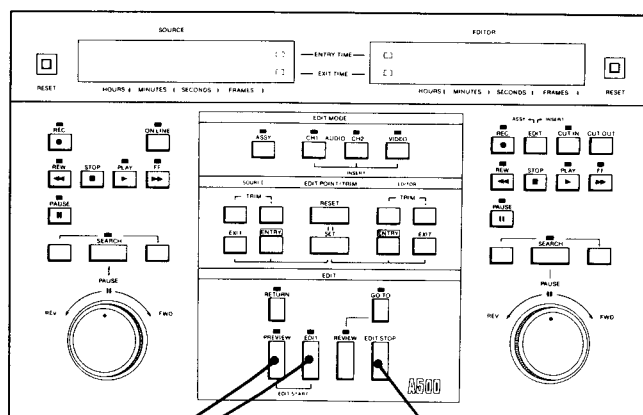
- 1) The end of [A] (edit start point), the start of [C] (edit end point*) and start of [B'] (edit start point) are entered.
- 2) The end of [A] (edit start point), start of [B'] (edit start point) and end of [B'] (edit end point*) are entered.

*Even though no edit end point has been entered, insert-editing is to be completed by pressing the Edit Stop Button at your desired edit end point during editing.

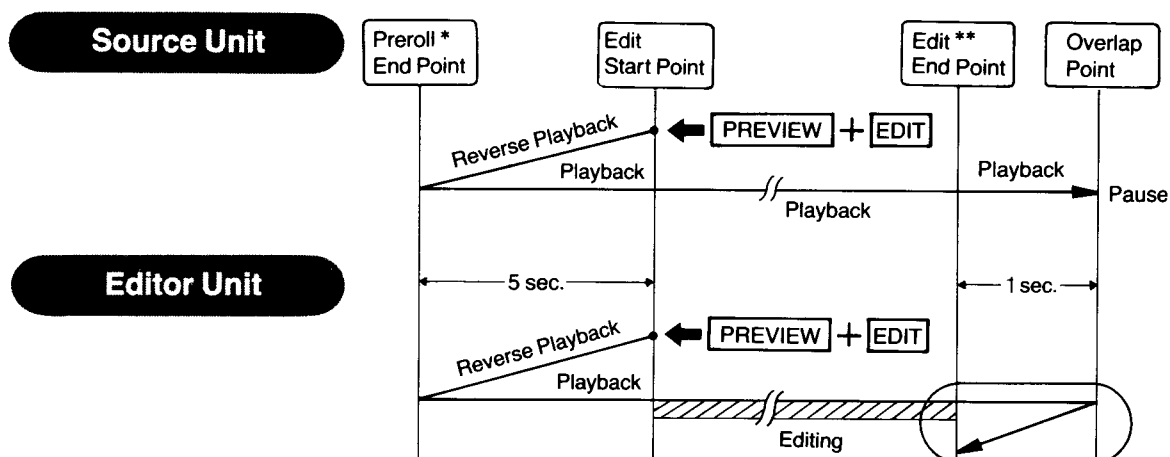


*This step need not be followed when an edit end point is not to be entered.

(4) Editing

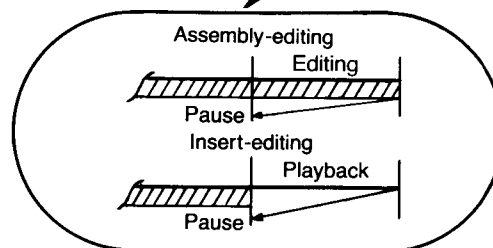


Tape movement after edit start



*The source and editor units pause for 1 second at the preroll end point.

**Press the Edit Stop Button when no edit end point is entered.



Notes:

- Under no circumstances should the tracking control on the video cassette recorder be touched during editing.
- Be sure that the CTL (control) pulses are recorded on the tape for 5 sec. before the edit start point. If not, editing cannot start.

ADVANCED EDITING

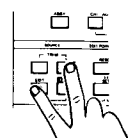
Trimming/Reset the Edit Points

Small-Scale Trimming (Frame-By-Frame)

Source Unit

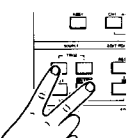
When trimming the edit end point:

Press the Plus Button or Minus Button, while keeping the Exit Button depressed, and correct the point frame by frame.

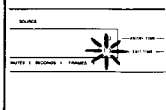


When trimming the edit start point:

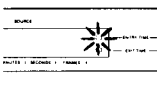
Press the Plus Button or Minus Button, while keeping the Entry Button depressed, and correct the point frame by frame.



[Counter]



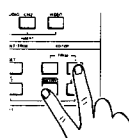
[Counter]



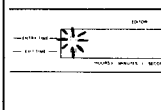
Editor Unit

When trimming the edit start point:

Press the Plus Button or Minus Button, while keeping the Entry Button depressed, and correct the point frame by frame.

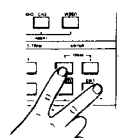


[Counter]

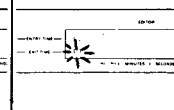


When trimming the edit end point:

Press the Plus Button or Minus Button, while keeping the Exit Button depressed, and correct the point frame by frame.



[Counter]

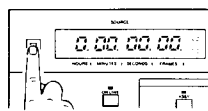


Note:
The edit point is not entered when nothing is displayed on the counter even when the Entry Button or Exit Button is pressed.

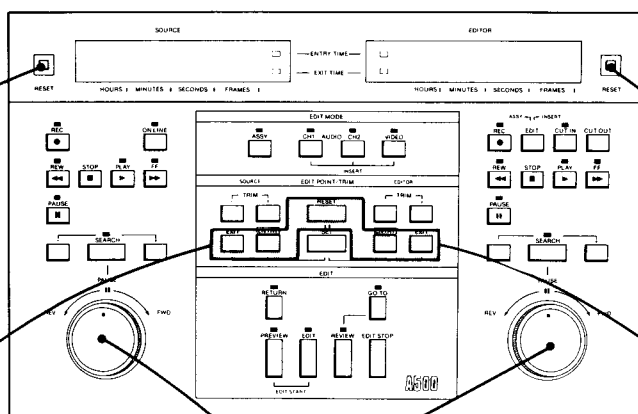
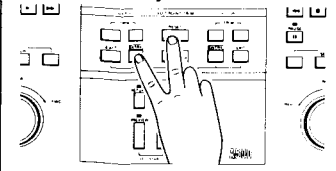
Reset

Source Unit

When the counter's Reset Button is pressed, the edit start and end points are erased from memory.



When the Reset Button and Entry Button or Reset Button and Exit Button among the editing controls are pressed simultaneously, the edit start point and edit end point are respectively erased from memory.

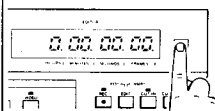


After resetting, the editing program is located and the edit points are entered again.

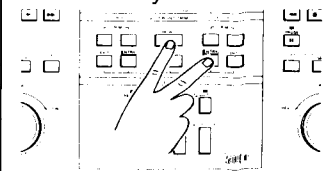


Editor Unit

When the counter's Reset Button is pressed, the edit start and end points are erased from memory.

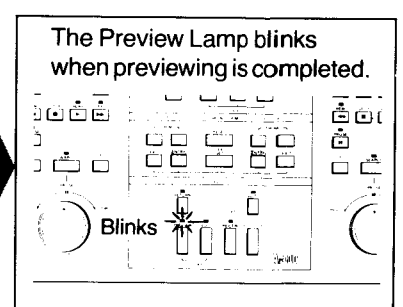
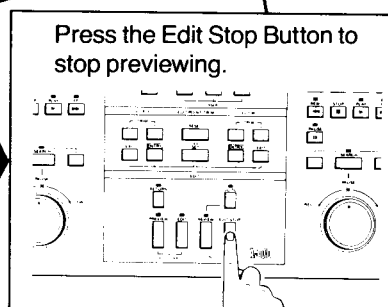
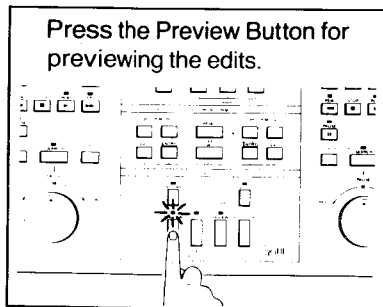
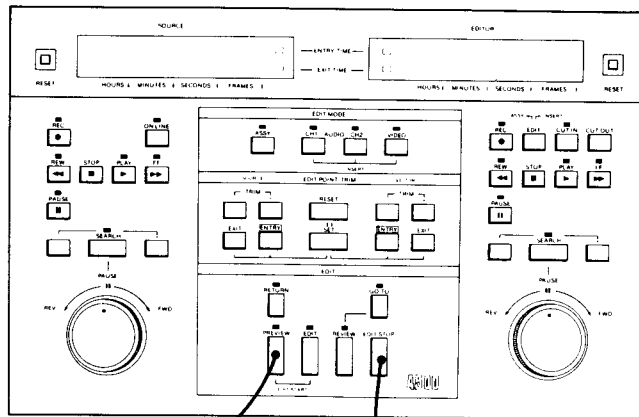


When the Reset Button and Entry Button or Reset Button and Exit Button among the editing controls are pressed simultaneously, the edit start point and edit end point are respectively erased from memory.

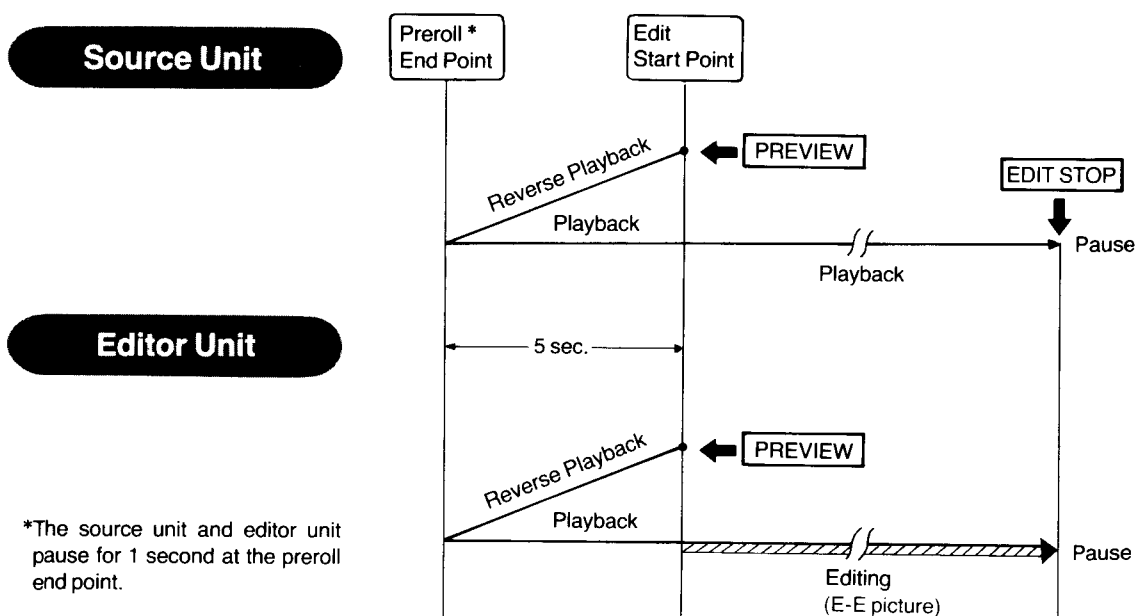


Preview Operation

Preview is a rehearsal which is performed before actual editing. The editing material is not recorded on the tape.

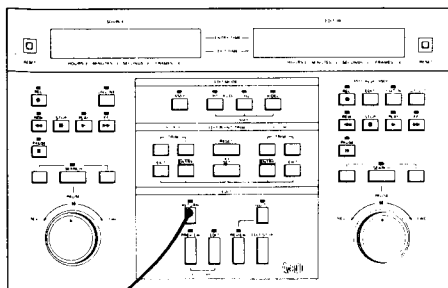


Tape movement after preview start



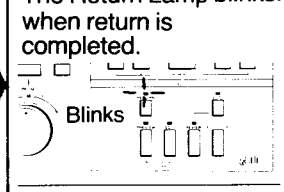
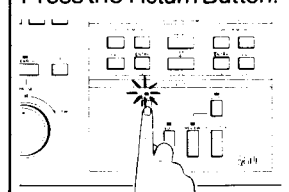
Return Operation

This operation returns the tape to the edit start point.



Press the Return Button.

The Return Lamp blinks when return is completed.

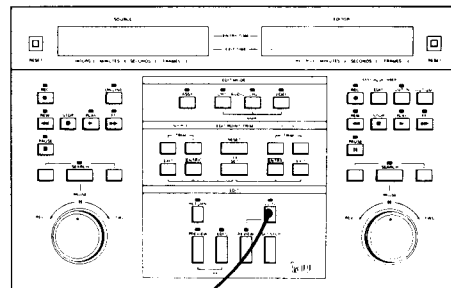


Note:

Perform the return operation only after having entered the edit start point. If the Return Button is pressed without this point having been entered, the Return Lamp blinks but the tape does not move.

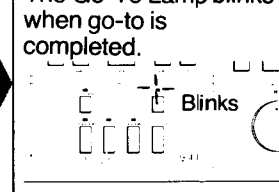
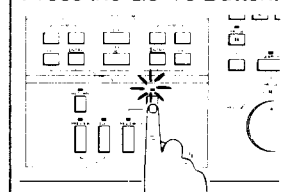
Go-To Operation

This operation advances the tape to the edit end point.



Press the Go-To Button.

The Go-To Lamp blinks when go-to is completed.

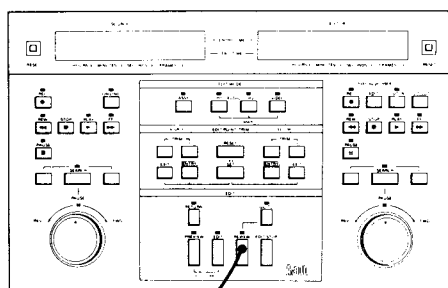


Note:

Perform the go-to operation only after having entered the edit end point. If the Go-To Button is pressed without this point having been entered, the Go-To Lamp blinks but the tape does not move.

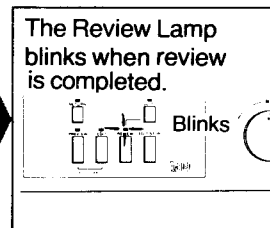
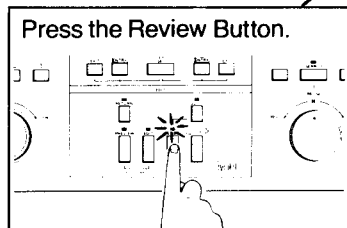
Review Operation

The review operation can be used to check the edited tape.



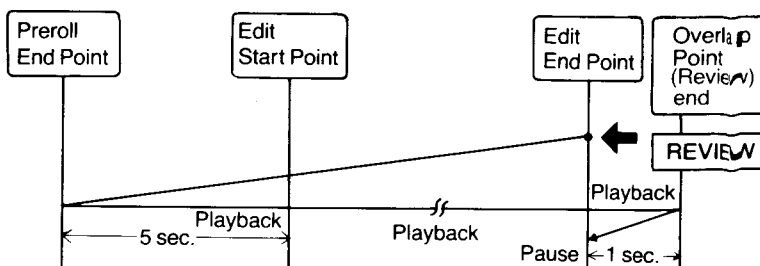
Press the Review Button.

The Review Lamp blinks when review is completed.



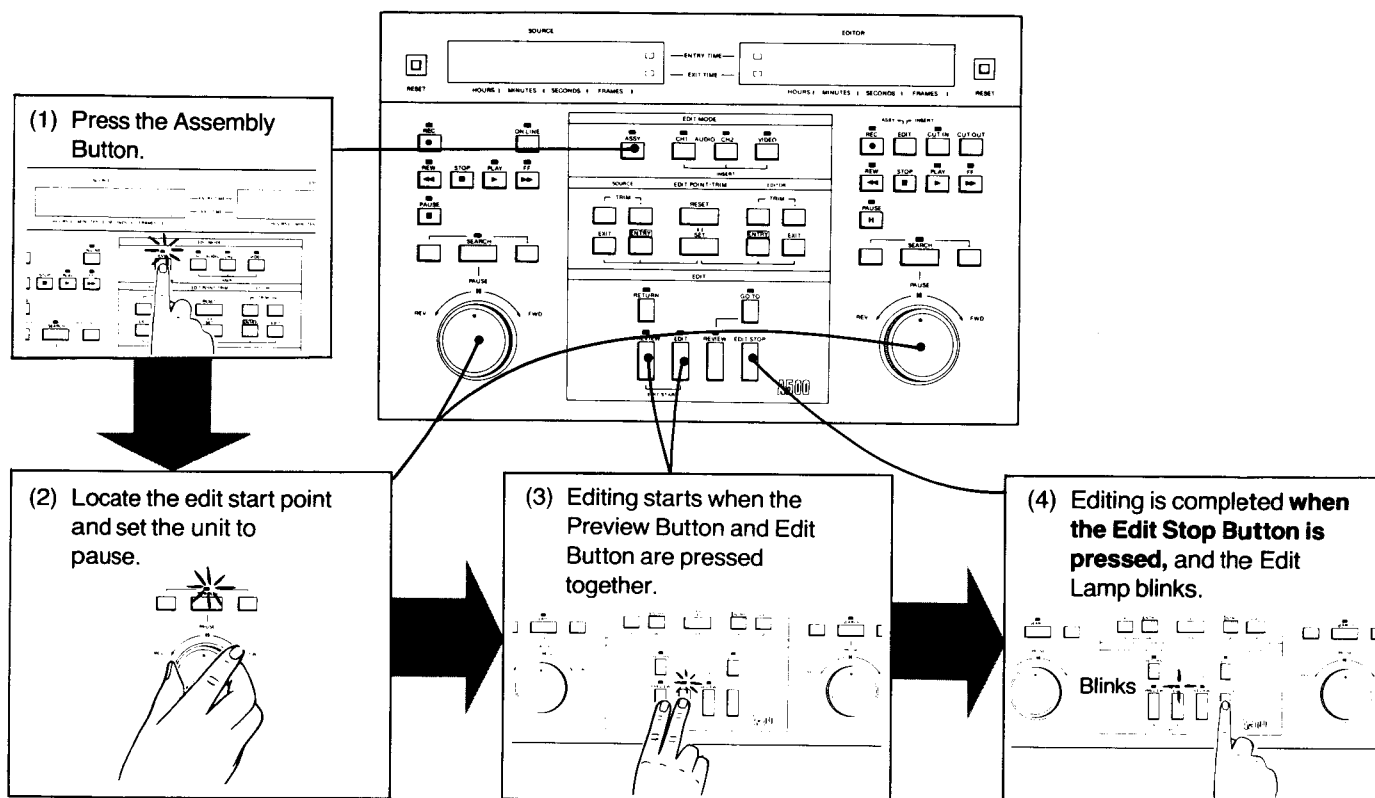
Tape movement after review start

Editor Unit

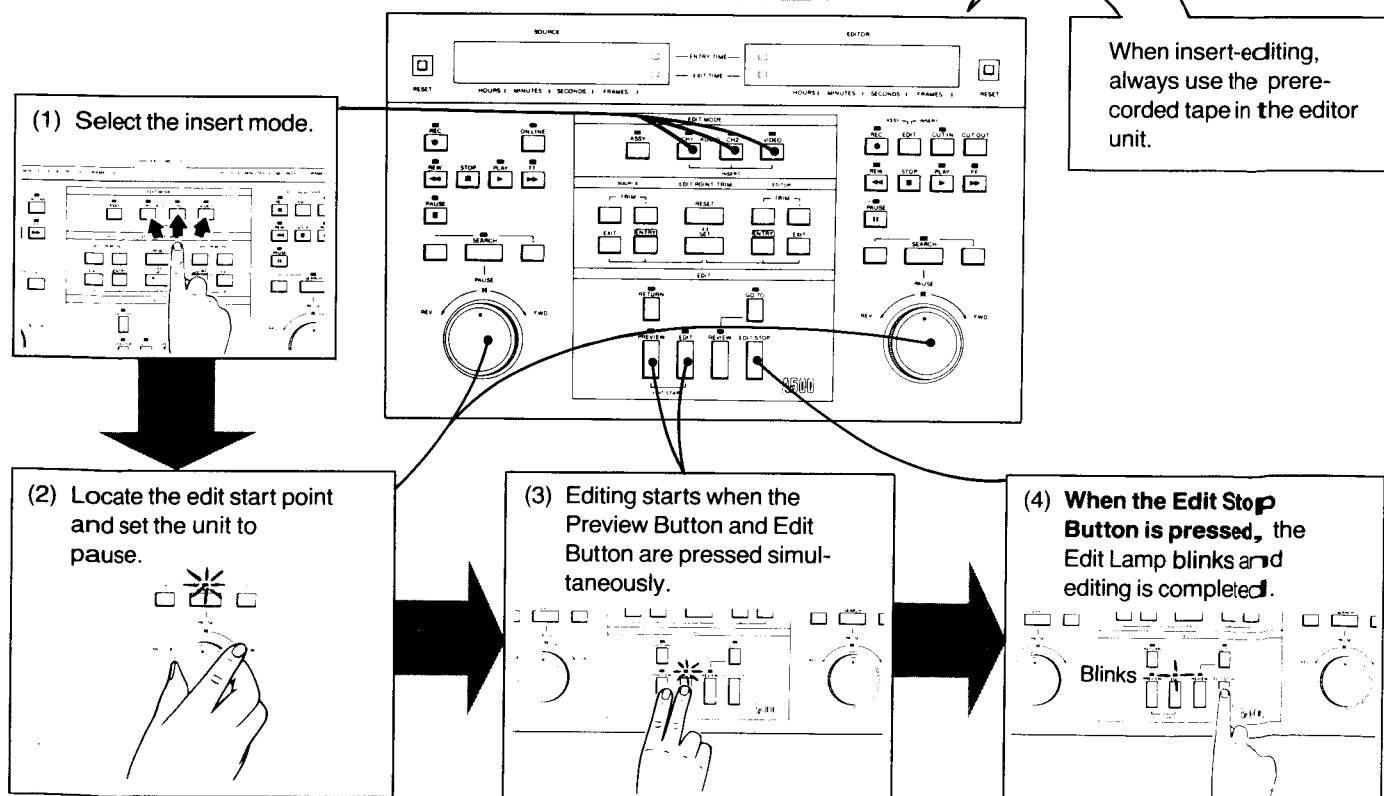


EDITING IMMEDIATELY AFTER START POINT LOCATION

Assembly-Editing

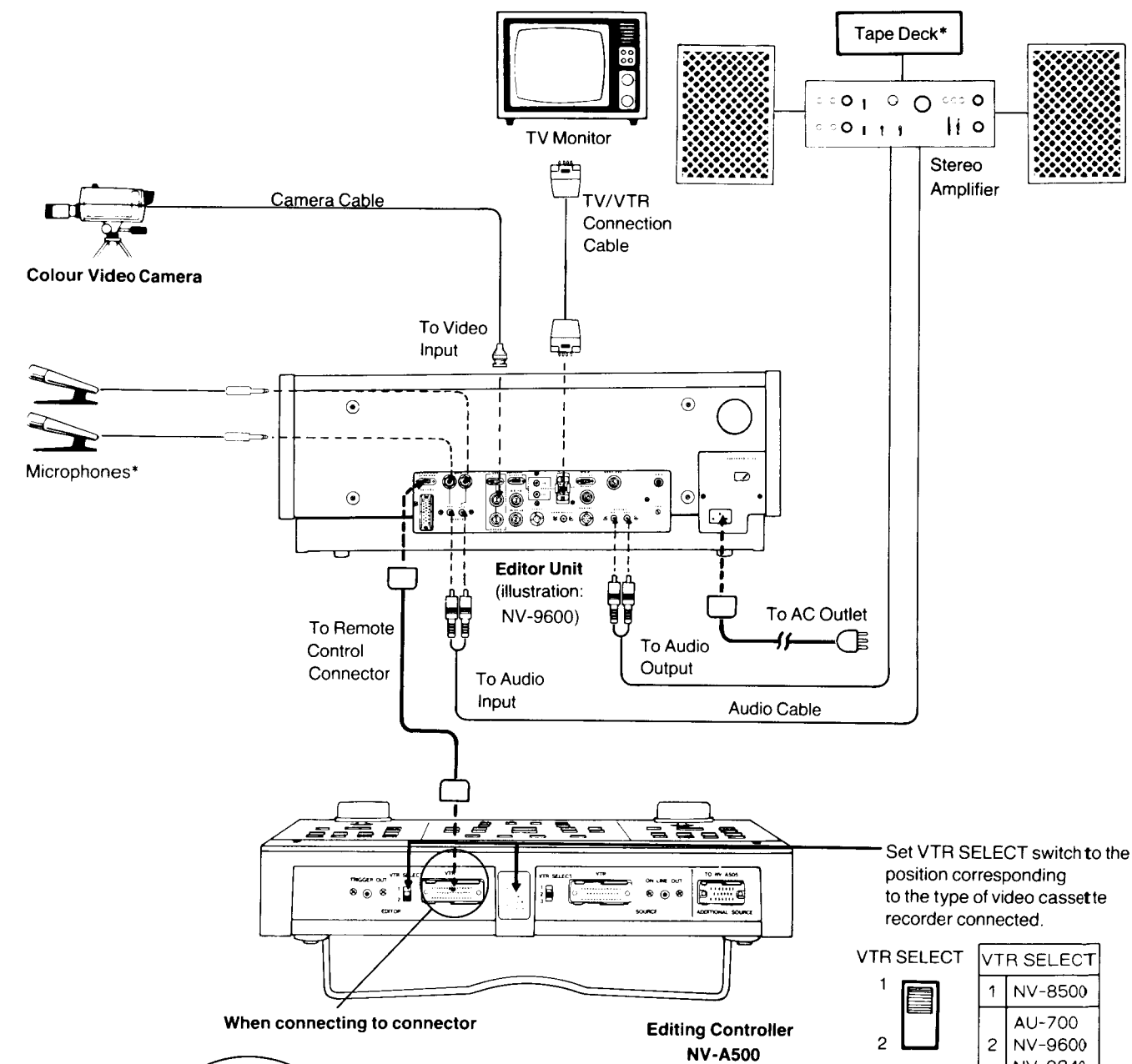


Insert-Editing



VIDEO CAMERA EDITING

Connection

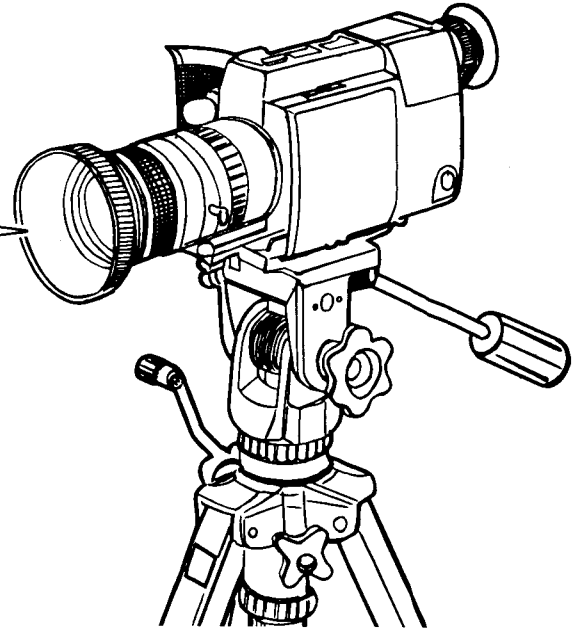


*Sound from the microphones and a tape deck (or line input) cannot be recorded simultaneously. When both are connected, the microphones take precedence.

Preparations

Video camera preparations

- Switch the video camera's power on.
Adjust the video camera's picture (color temperature, iris, focus, angle of field, etc.). For details, read the video camera's operating instructions.



Editor unit preparations

Switch Settings

- Set the switches for preparation of **editor** as given on page 11.

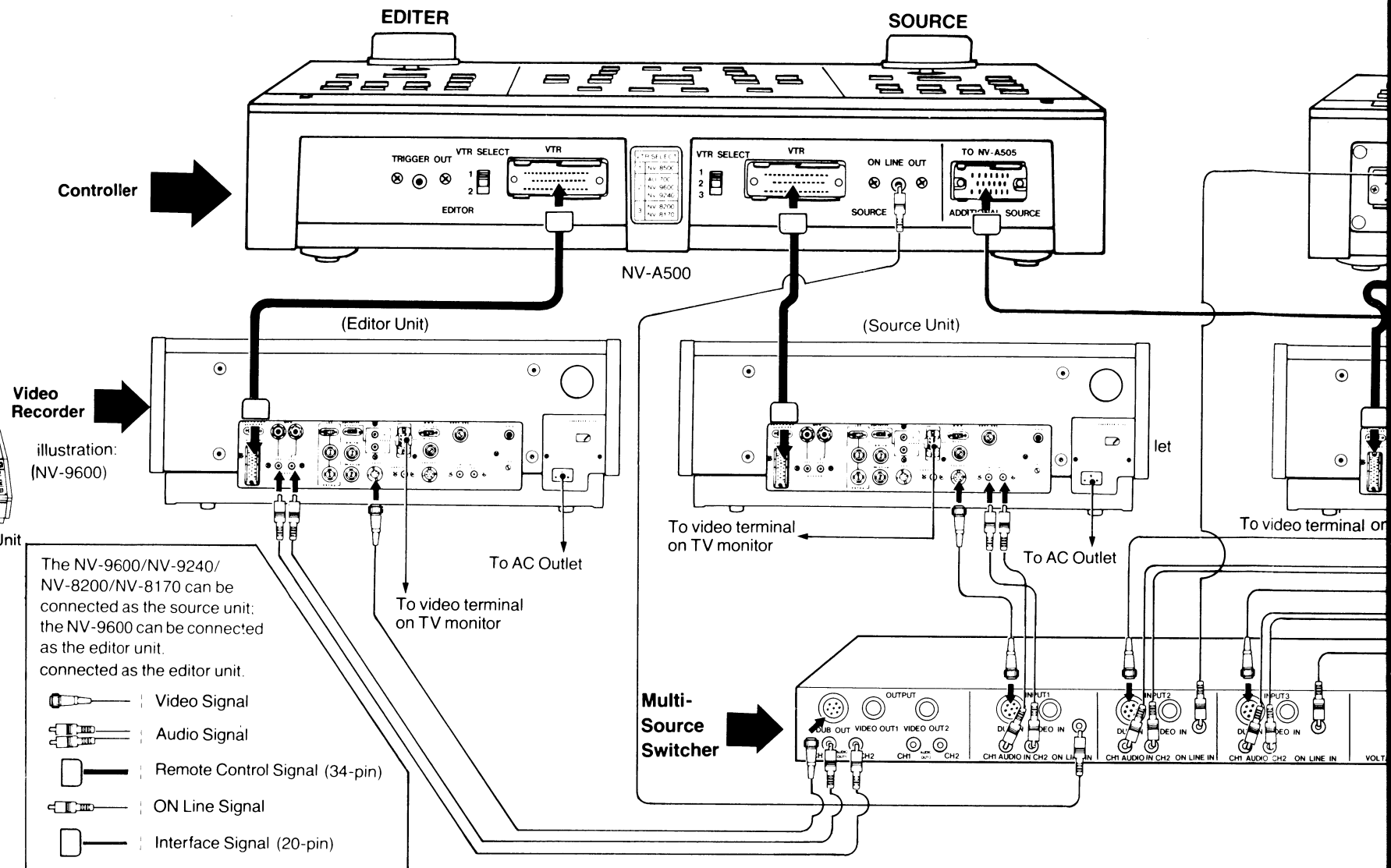
Adjustments before editing

Adjust before editing by following the preparations of the **editor unit** given on page 12. Check the video camera signals instead of the source unit playback.

Editing

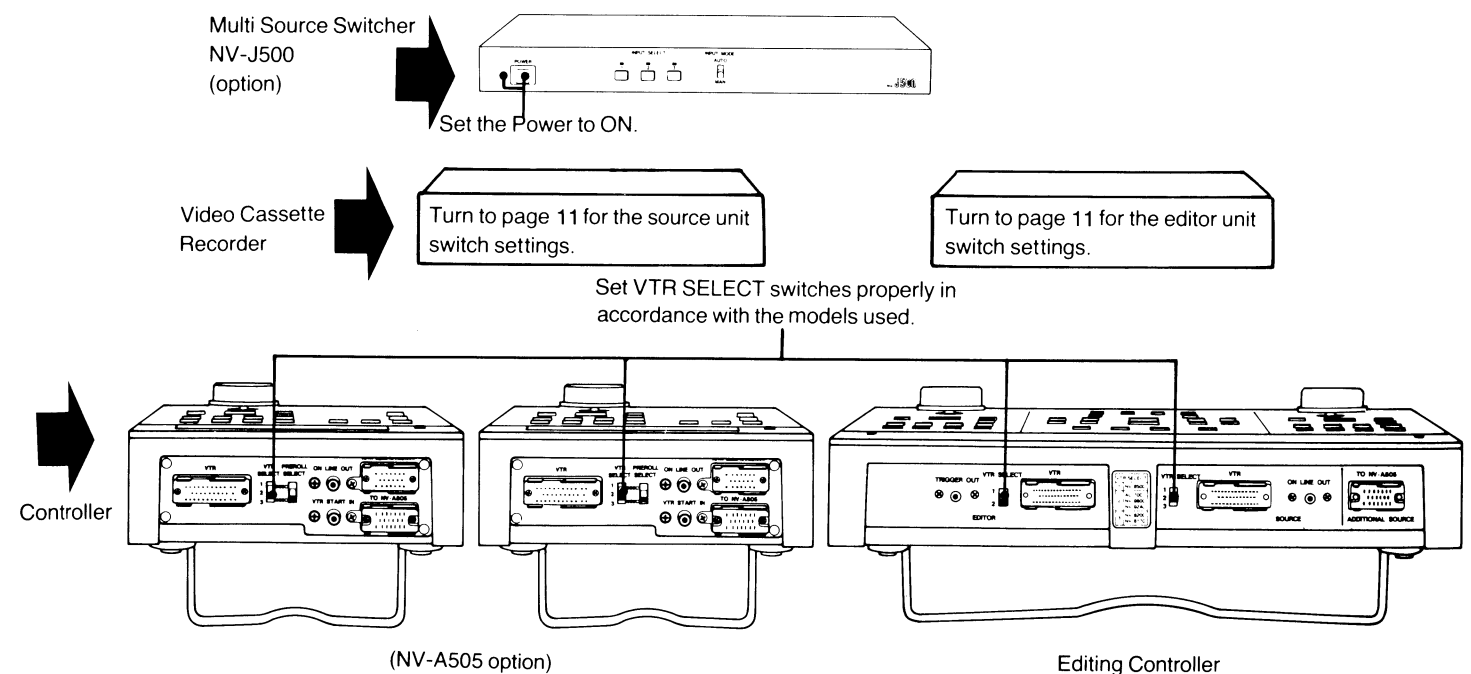
The video camera signals can be both assembly and insert edited. Turn to pages 13 through 21 for editing operations details.

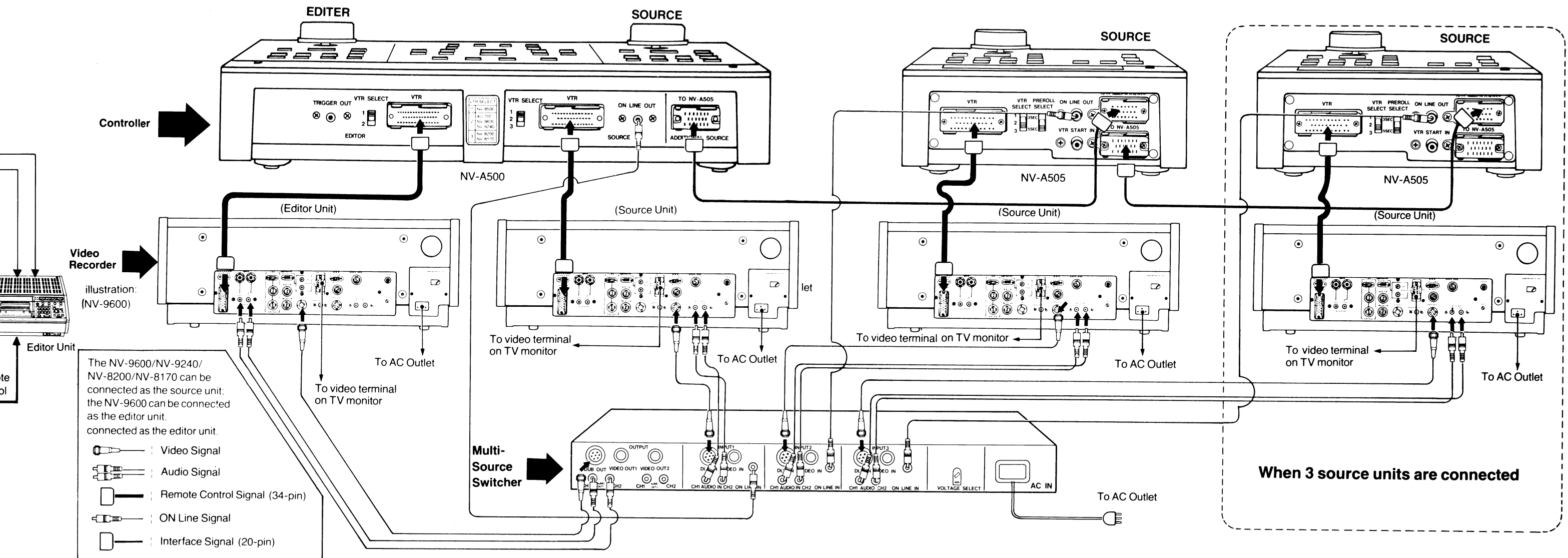
Using the Multi-Source Switcher NV-J500 (option)



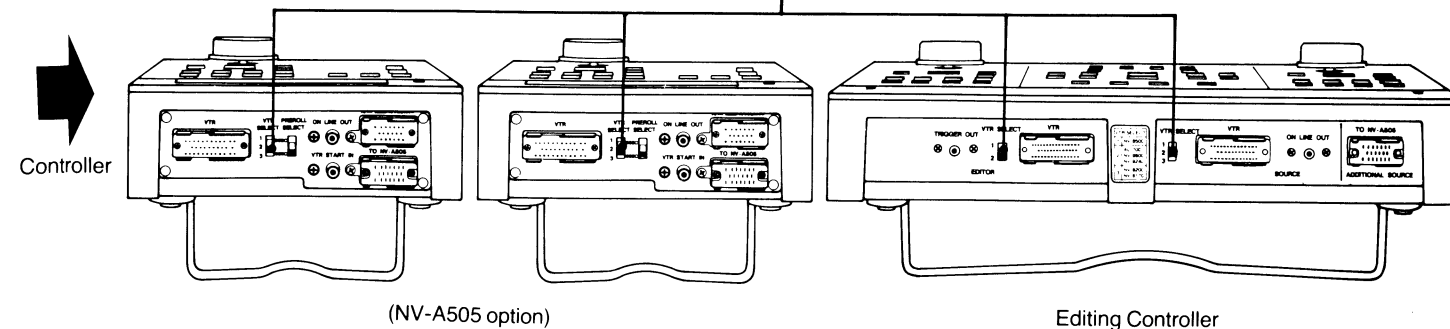
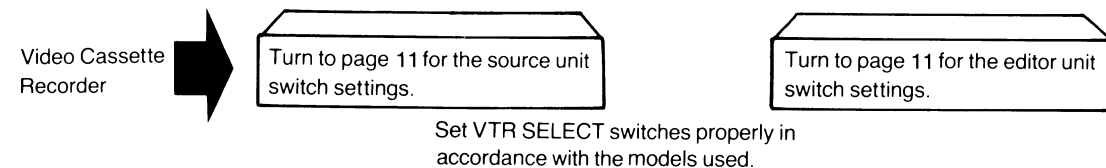
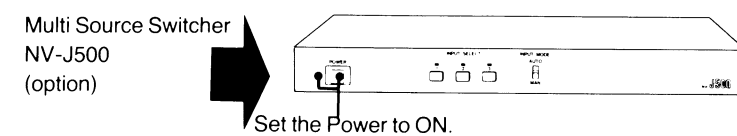
Switch Settings

For instance, studio video cameras can be used to shoot the same scene from different angles and, while playing back the tape on two or three source units, the tape can be edited by using the Multi-Source Switcher NV-J500 to select the source units.

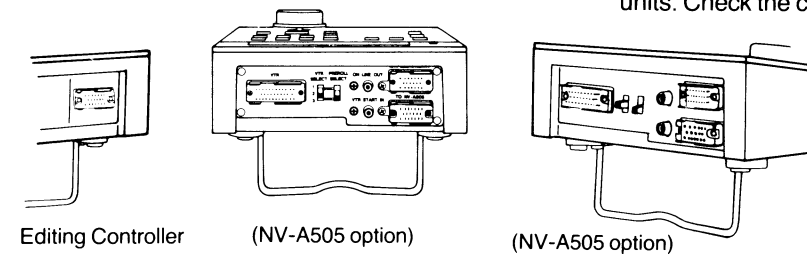




Switch Settings

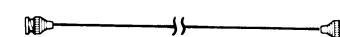


Additional Source Connector



Use the Additional Source Connector "TO NV-A505" or "TO NV-A500/NV-A505" when connecting two or three source units. Check the connector polarities and connect properly.

Video Input/Output Connectors

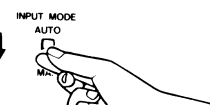


The dubbing cable cannot be used for either the source unit or editor unit when a BNC connector cable is used for connecting the video signal (when, for instance, the NV-8200 or NV-8170 model is connected to the source unit). Use the BNC connector cable and check that the input signal selector on the video recorder is in the "LINE" position.

Editing with 1 source unit & 1 editor unit

Multi-Source Switcher NV-J500 (option)

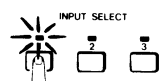
When the Input Mode Switch on the Multi-Source Switcher NV-J500 has been set to "MAN":



Press the ON Line Button on the controller connected to the source unit. All the on-line lamps should go off.

← Off

Press the Input Selector Button to select the source unit which is to be used for editing.

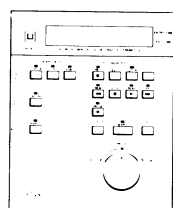


(When using the source unit connected to input 1)

Press the ON Line Button on the Remote Search Controller NV-A505 or Editing Controller NV-A500 connected to the selected source unit. This will cause the corresponding lamp to light.

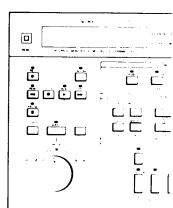
← On

When searching for the editing programme



Remote Search Controller NV-A505

Or



Editing Controller NV-A500

Editing procedure is the same as for the basic system consisting of one source unit and one editor unit but when searching for the programme to be edited, it is performed at the controller whose ON Line Lamp is lit. For details, turn to pages 11 through 21.

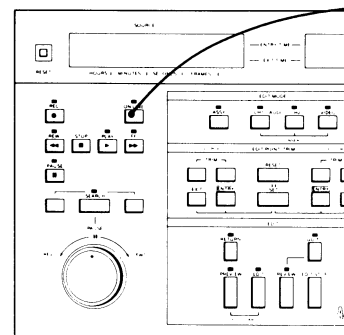
Searching for the programme in the source unit which is not being used for editing:

The search for the next program to be edited is performed at the controller whose ON Line Lamp is off.

Starting 2 or 3 Source Units Simultaneously for Editing

Bear in mind the following points when starting two or three source units simultaneously.

- 1) Operate the video recorder with an external sync signal provided by a sync signal generator.
- 2) Connect the video signal to the BNC connector and switch between source unit during editing.
- 3) Set the Input Signal Selector on the video recorder to the "LINE" position.



Press the ON Line Button on the Remote Search Controller NV-A505 or on the Editing Controller NV-A500 connected to the source units to extinguish all the on line lamps.

← Off

Press the ON Line Button on the Remote Search Controller NV-A505 or on the Editing Controller NV-A500. This will cause the lamp to light and select the source units which are to start simultaneously.

← On

Set the Input Mode Switch on the Multi-Source Switcher NV-J500 to the "MAN" position.

← On

Press the Input Selector Button on the multi-source switcher to select the source unit whose tape is to be edited first.

← On

(When using the source unit connected to input 1)

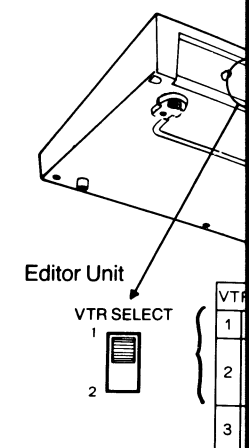
When searching for the pictures to be edited

After having aligned the edit start points of the pictures in the source unit being used, proceed with the editing. This is the same as for the basic system consisting of one source unit and one editor unit, but when searching for the programme to be edited, editing is performed at the controller whose ON Line Lamp is lit. Turn to pages 13-21 for details of the editing operation.

When switching between the source units.

To switch between the source unit during editing, press the Input Selector Buttons on the Multi-Source Switcher NV-J500 (option).

- When the on line lamp on the controller is not lit, the signals of the corresponding source unit are not edited even when the Input Selector Button is depressed.



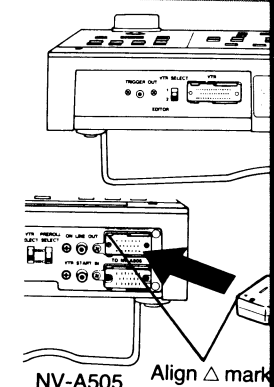
Editor Unit

VTR SELECT

1

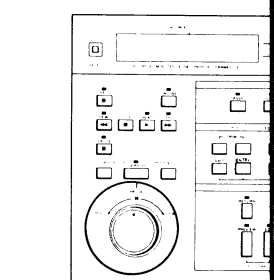
2

3



NV-A505

Align Δ mark



When searching for

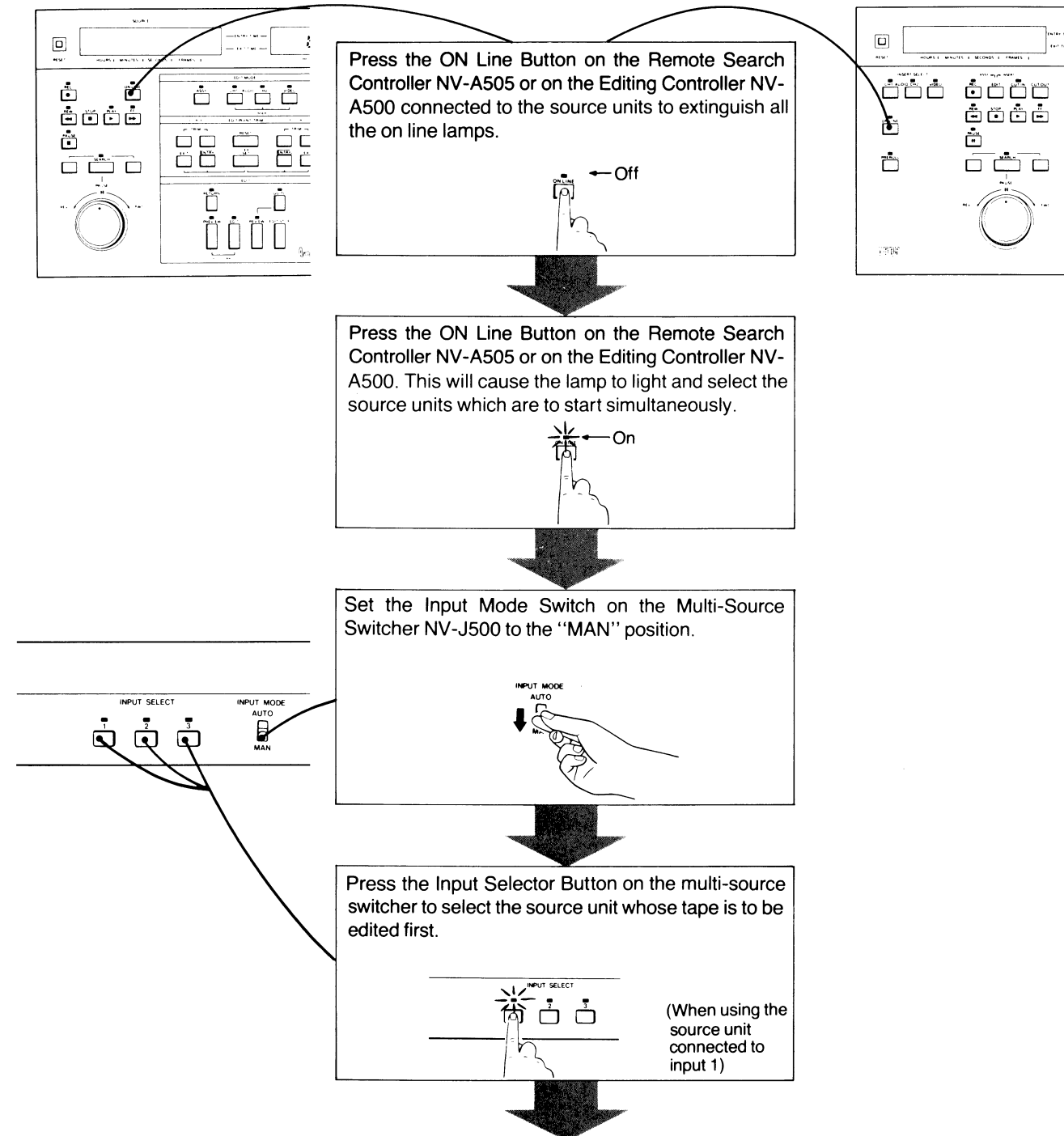


Make the speed constant.

Starting 2 or 3 Source Units Simultaneously for Editing

Bear in mind the following points when starting two or three source units simultaneously.

- 1) Operate the video recorder with an external sync signal provided by a sync signal generator.
- 2) Connect the video signal to the BNC connector and switch between source unit during editing.
- 3) Set the Input Signal Selector on the video recorder to the "LINE" position.



When searching for the pictures to be edited

After having aligned the edit start points of the pictures in the source unit being used, proceed with the editing. This is the same as for the basic system consisting of one source unit and one editor unit, but when searching for the programme to be edited, editing is performed at the controller whose ON Line Lamp is lit.

Turn to pages 13-21 for details of the editing operation.

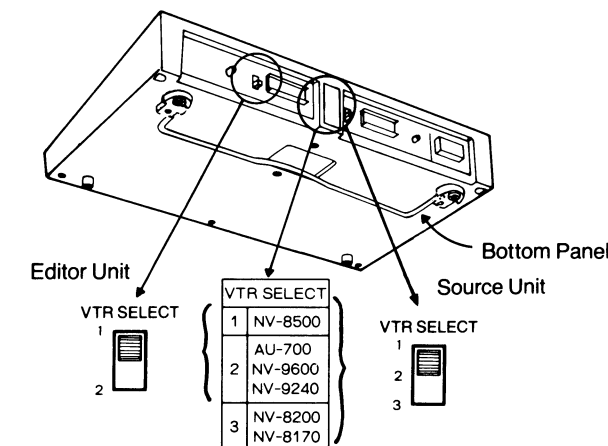
When switching between the source units.

To switch between the source unit during editing, press the Input Selector Buttons on the Multi-Source Switcher NV-J500 (option).

- When the on line lamp on the controller is not lit, the signals of the corresponding source unit are not edited even when the Input Selector Button is depressed.

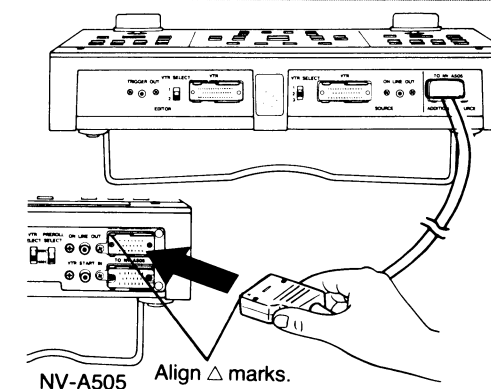
OPERATING HINTS

VTR Selector Switch



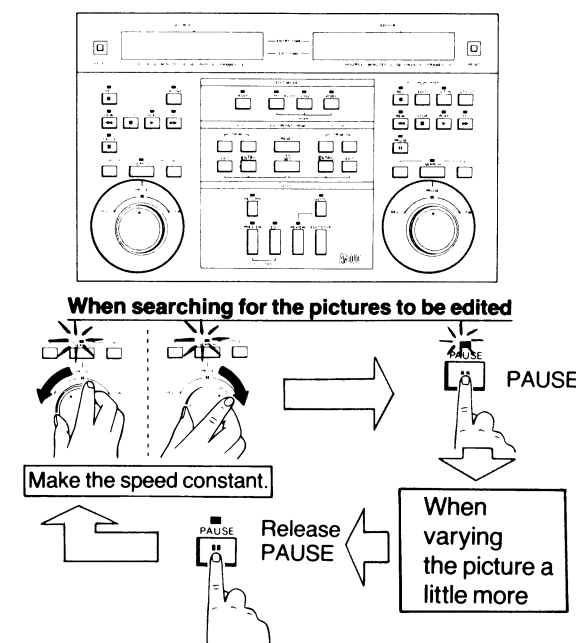
NV-9600, NV-9240, NV-8200 or NV-8170 can be used as the source unit. (The NV-9240, NV-8200, NV-8170 cannot be used as the editor).

Additional Source Connectors



Use these connectors when editing with 2 or 3 source units connected simultaneously. Connect to "TO NV-A500/NV-A505" Connector on the Remote Search Controller NV-A505 and Editing Controller NV-A500 using the 20-pin cable provided. Check the plug polarities and connect properly.

Using the Search Dial.



The Search Dial is used to search for the pictures to be edited while viewing them on the TV monitor. Rotate the dial and select the desired playback speed. This speed will differ in accordance with the model connected.

Dial	Reverse (REV)		Forward (FWD)	
	3/4-inch NV-9600 NV-9240	VHS NV-8200 NV-8170	3/4-inch NV-9600 NV-9240	VHS NV-8200 NV-8170
$\times 1/20$	$\times 1/20$	Rewind (No play-back)	$\times 1/20$	Slow motion*
$\times 1/5$	$\times 1/5$		$\times 1/5$	
$\times 1$	$\times 1$		$\times 1$	$\times 1$
$\times 2$	$\times 2$		$\times 2$	$\times 2$
$\times 5$	$\times 5$		$\times 5$	
Frame Adv./ Rev.	See note	Adv.	See note	○

All values in this table indicate the number of times faster or slower than the rating the tape speed normal playback is set to. (○=possible)

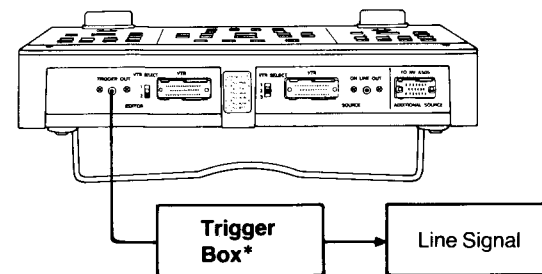
*Set the playback speed control switch on the NV-8200 or NV-8170 to SLOW. Slow motion picture will not appear if this control switch has been set to FAST.

NOTE: NV-9600/NV-9240 cannot be activated for this operation.

Preroll Time

Competent editing has no allowance for disarray in the continuity of the scenes on an edited tape. This means that the source and editor units must be synchronized when editing. The preroll time may be considered as the time for providing this synchronization (about 5 seconds). When editing with two or three source units, the same preroll time must of course be selected but there is no need to set the preroll selector switch on the Remote Search Controller NV-A505 (option). The preroll time is automatically set to about 5 seconds when editing.

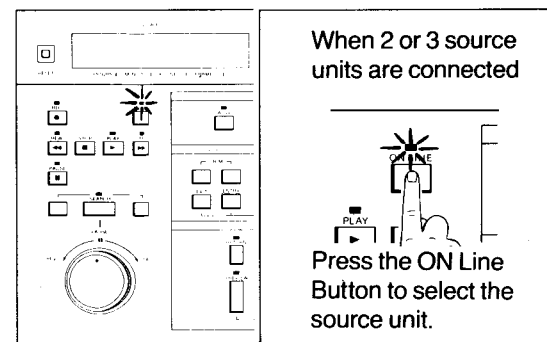
Trigger Output Terminal



*The trigger box is the line input signal's control switch. Operate it so that the line signal can be started.

When checking an edited tape using a video camera or tape recorder and touching up the continuity of the program scenes, use this terminal. As soon as the video cassette recorder starts and preroll is completed, a negative signal is output for about 1 second. Use this terminal, for instance, when starting a tape recorder automatically or when causing the "edit start" warning lamp to light with the camera's subject using a relay signal.

ON Line Button



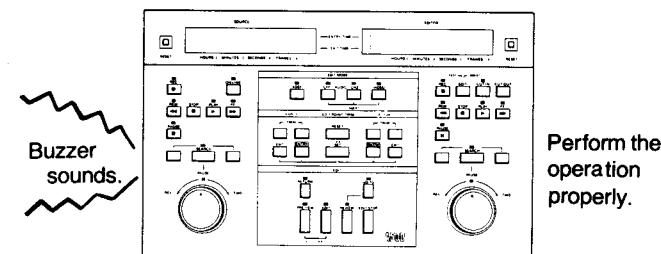
This button is not used with a basic editing system (turn to page 9), consisting of a source unit and an editor unit. (The lamp remains on.) When two or three source units are connected, the source unit which is to be used for editing must be selected and the ON Line Button can be considered as the selector button. The button is pressed and the source unit corresponding to the lamp that lights last is selected. As soon as editing starts, the source units connected to the Controller NV-A500 or NV-A505 whose ON Line Lamp lights begin operating, respectively. This function is used when editing while starting the source units simultaneously. When the units are not to be started simultaneously, it causes the lamp on the controller NV-A500 or NV-A505 to light only for the source unit which is being used.

TROUBLESHOOTING

... Check the following points once again.

Buzzer sound when a function button is pressed.

An error has been made in the editing procedure. For instance, the buzzer sounds when steps are taken to memorize the edit point without the editing mode having been selected. Perform the operation again properly.



No change in counter display.

The control (CTL) signal has not been recorded onto the tape. The counter will not move unless this signal is recorded.

No reverse playback of tape using search dial.

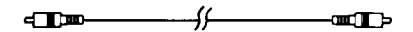
- The rewind mode is established when the NV-8200 or NV-8170 is used as the video cassette recorder and no playback pictures appear on the TV monitor.
- Has the rear panel VTR Selector Switch been set properly? If the switch is at "3", the rewind mode is established as with the NV-8200 and NV-8170.

No frame-by-frame advance or reverse.

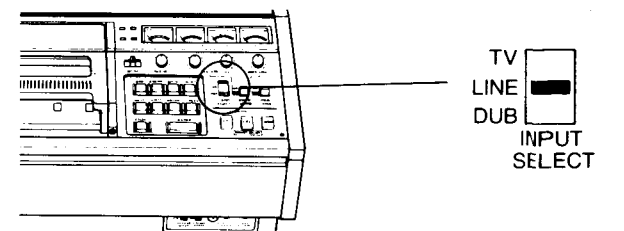
- Frame-by-frame advance or reverse operations cannot be performed when the NV-9600 or NV-9240 video cassette recorder is connected.
- When the NV-8200 or NV-8170 video cassette recorder is connected and the frame-by-frame reverse operation is performed, the frame-by-frame advance mode is established instead.

No preview or editing.

- Has all the equipment been connected properly? Connect the inputs and outputs properly so that none of the plugs and connectors will be free.

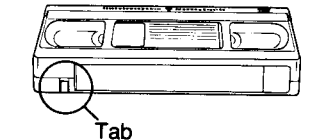


- Have all the switches on the video recorders and controller been set properly? Is the Input Selector Switch in the "DUB" or "LINE" position for tape editing, for instance?

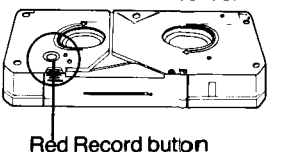


- Is the cassette loaded in the editor unit equipped with its tab or red record button?

VHS video cassette recorder

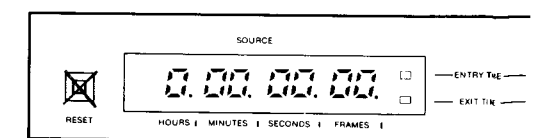


3/4-inch video recorder

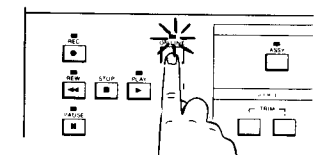


- Has the tape come to an end? Has the tape in the editor unit, for instance, come to its end?

- Has the counter's Reset Button been pressed after the edit points have been entered? Enter the edit points again and perform the proper editing operations.



- Is the ON Line Lamp on the controller connected to the source unit being used lit?



- Is the video recorder's moist lamp or auto off lamp lit?

The input cannot be selected by the Multi-Source Switcher NV-J500 (option) when starting the source units simultaneously.

- Is the Input Mode Switch in the "MAN" position?

Refer servicing to qualified service personnel.

Memo

DISASSEMBLY METHOD

1. Loosen the 7 screws and remove the bottom case.

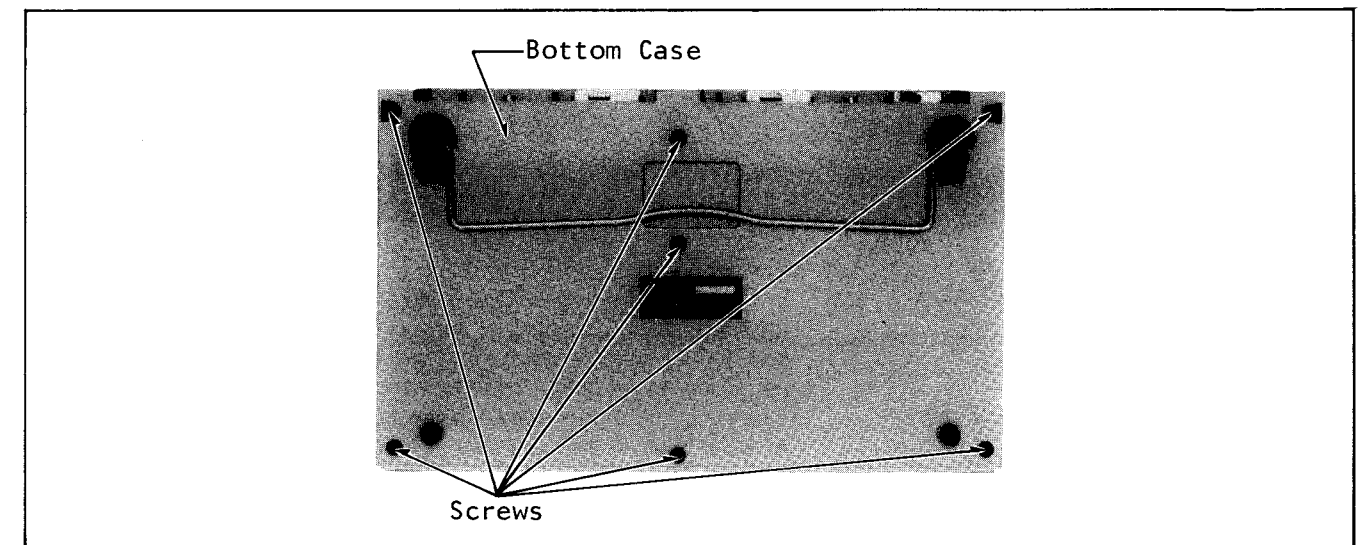


Fig. 1

2. Remove the CPU board from the P.C. board support.

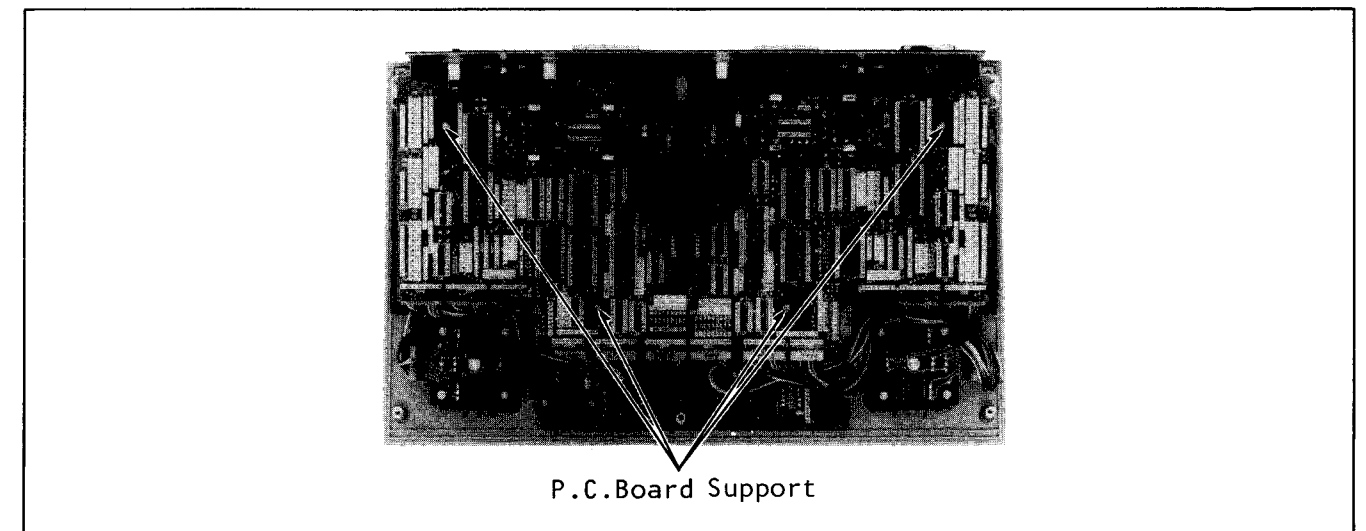
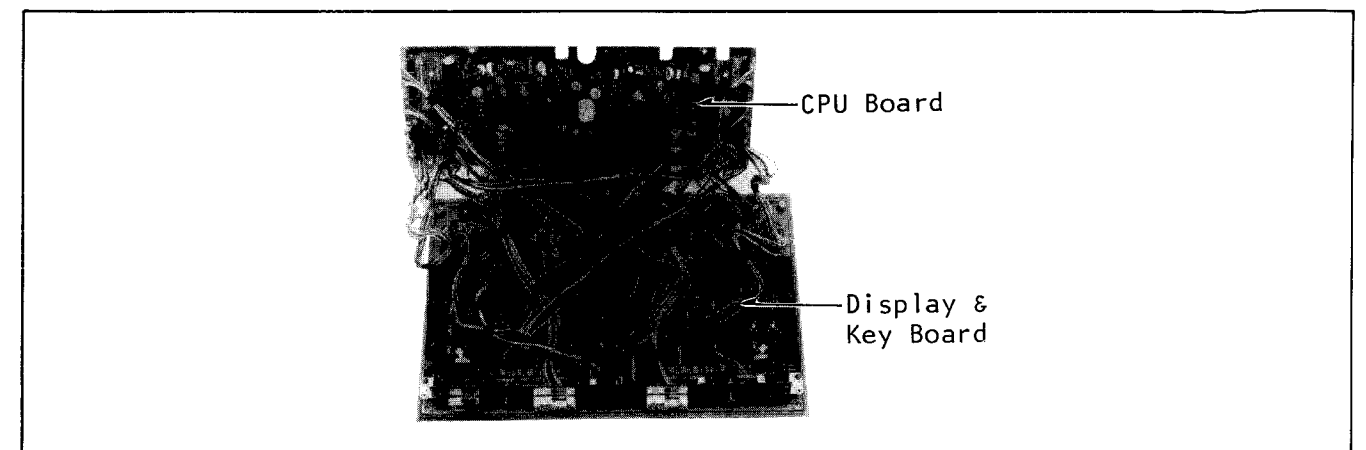
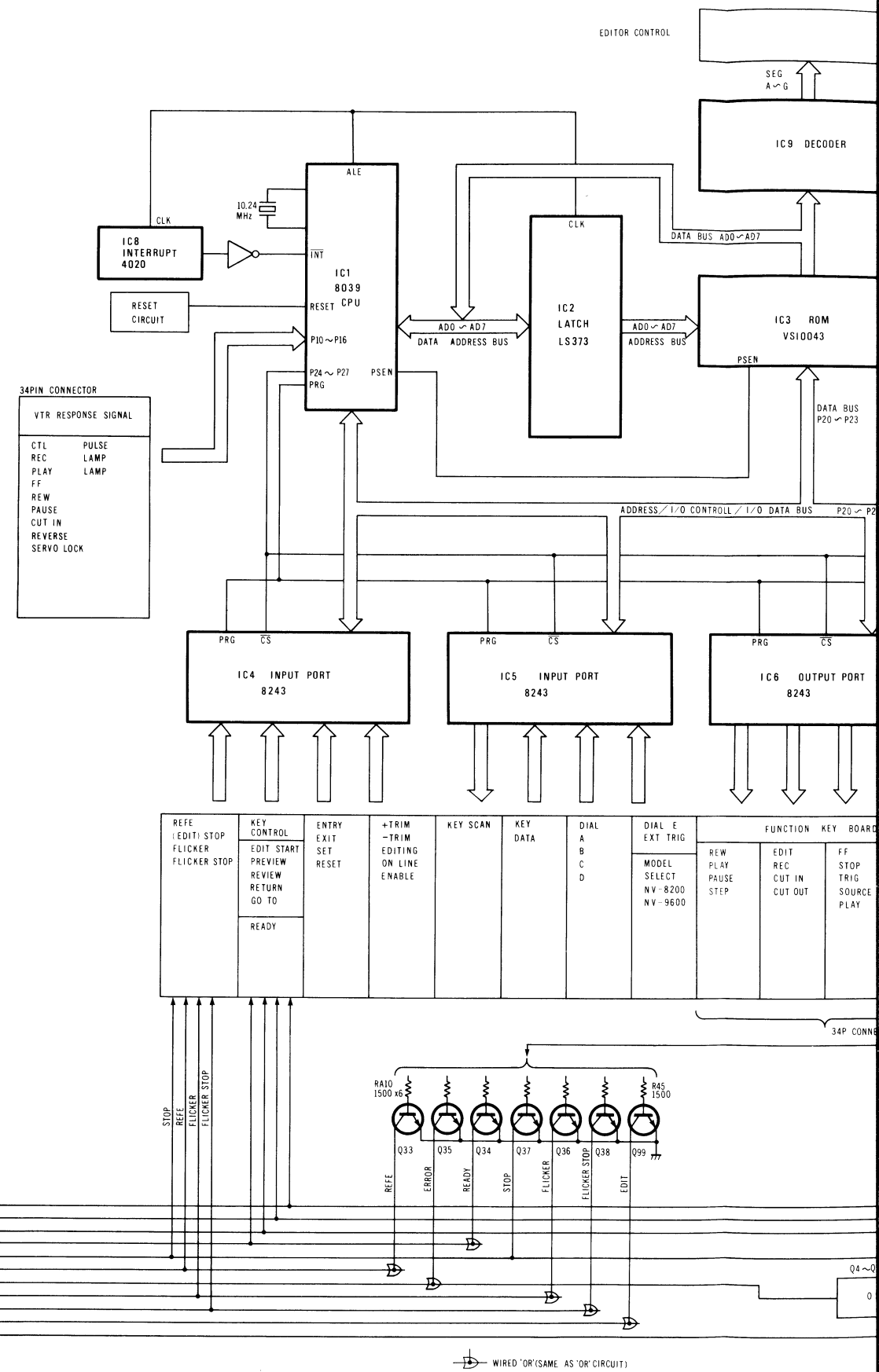
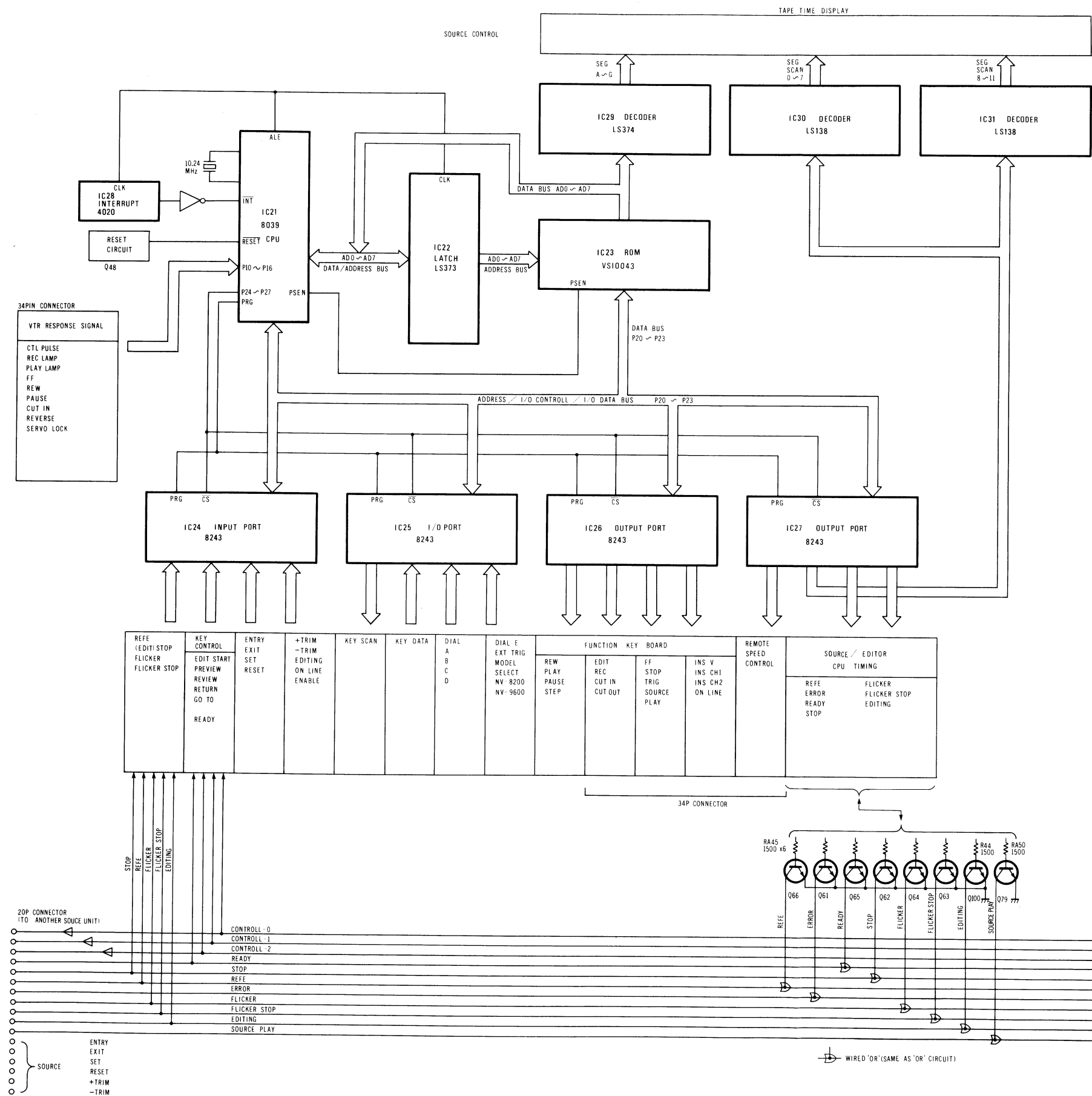


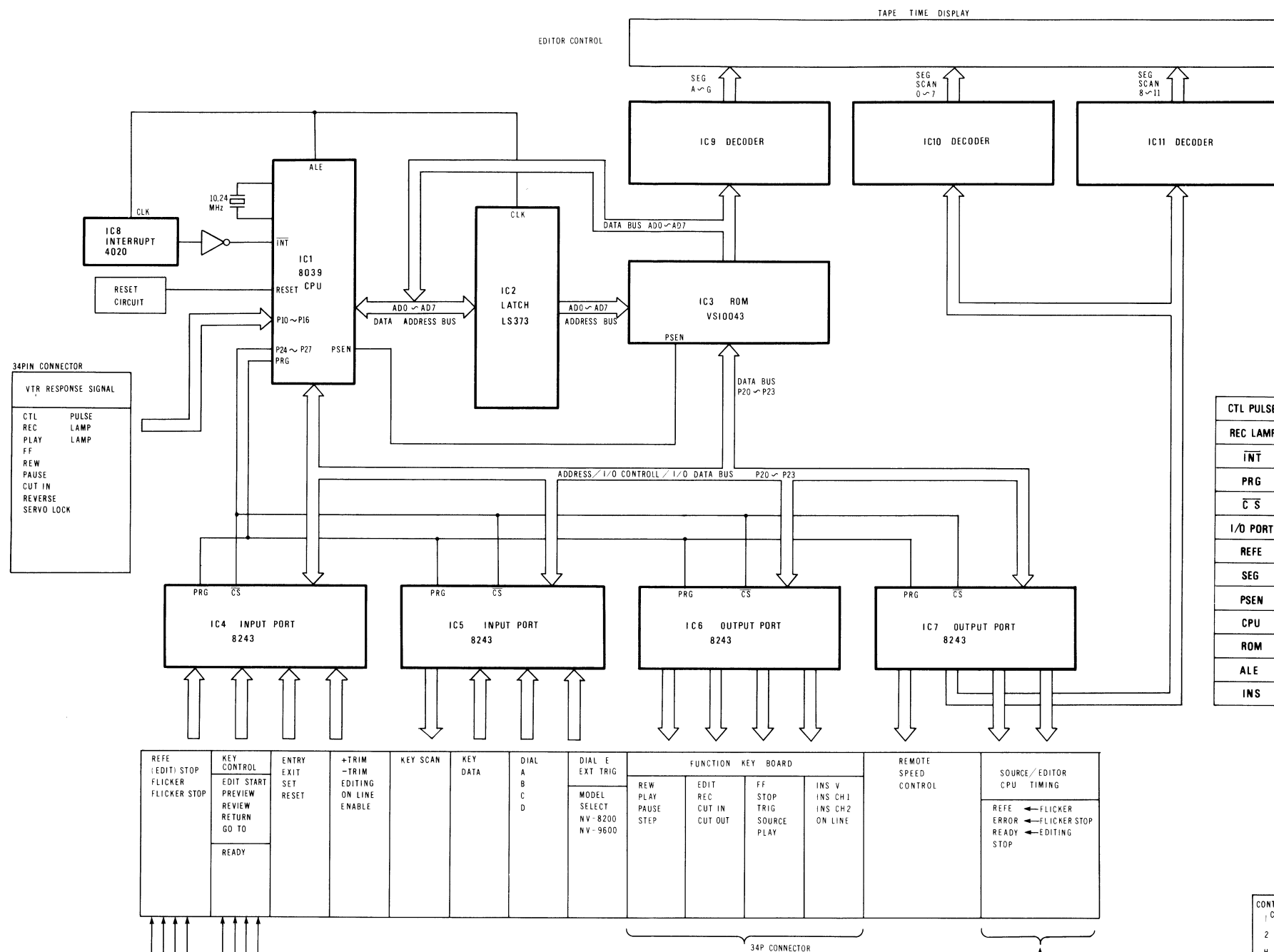
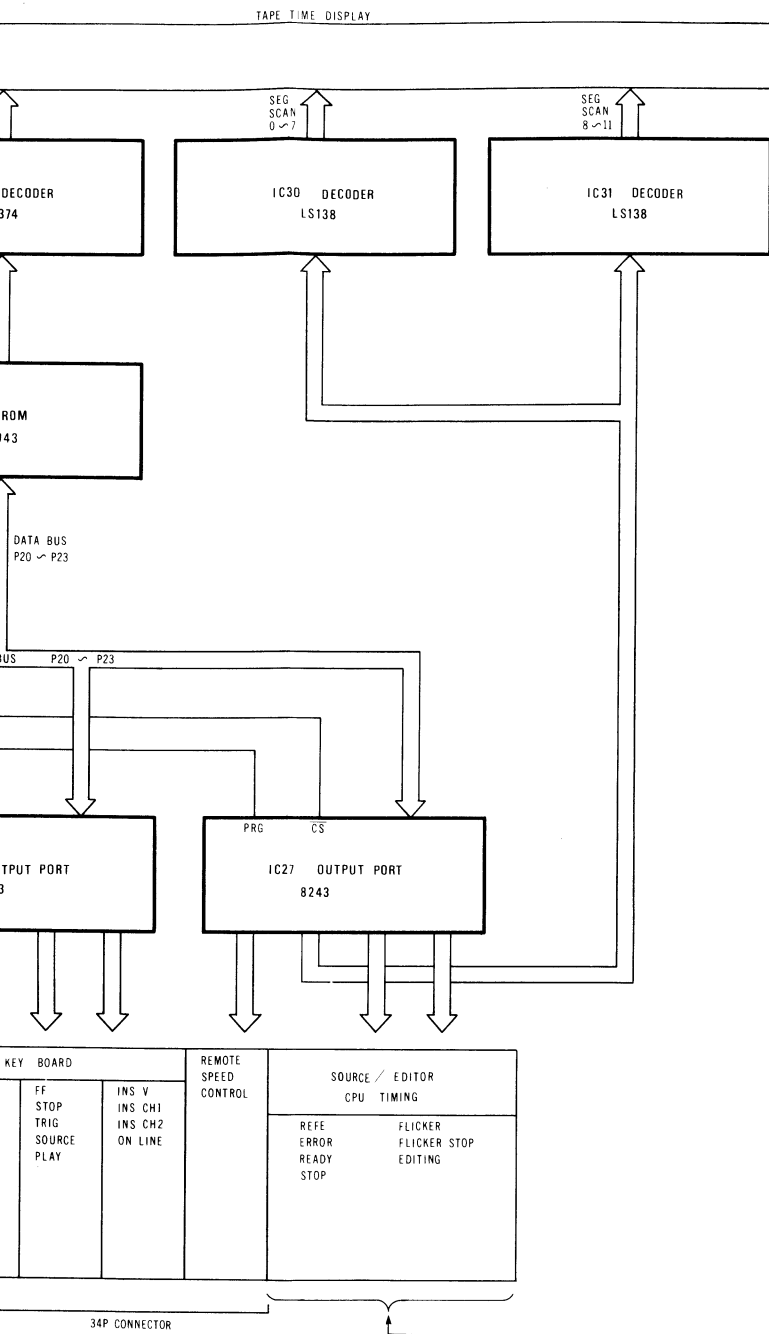
Fig. 2

3. Open the CPU board.

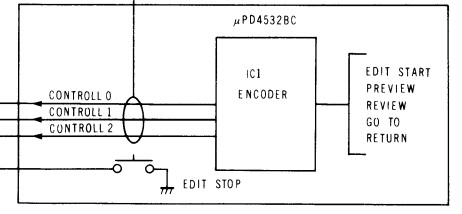
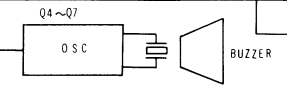
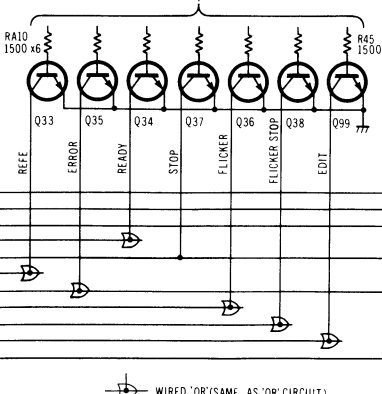
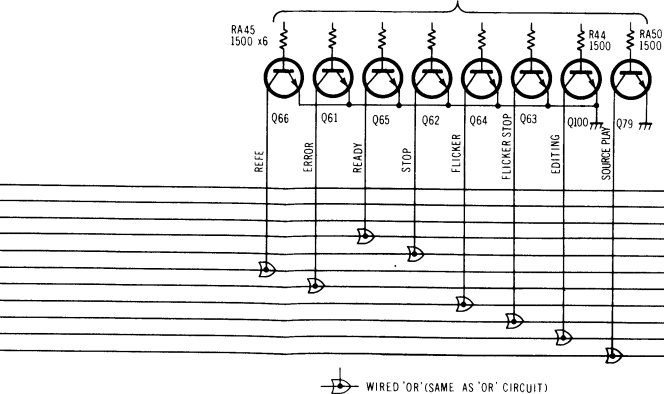


OVERALL BLOCK DIAGRAM





CTL PULSE	: CONTROL PULSE
REC LAMP	: RECORD LAMP
INT	: INTERRUPT
PRG	: PROGRAM
CS	: CHIP SELECT
I/O PORT	: INPUT/OUTPUT PORT
REFE	: REFERENCE
SEG	: SEGMENT
PSEN	: PROGRAM STORE ENABLE
CPU	: CENTRAL PROCESSING UNIT
ROM	: READ ONLY MEMORY
ALE	: ADDRESS LATCH ENABLE
INS	: INSERT



CONT	: CONT
1 CONT	: CONT
2 1 0	: CONT
H H H	: NON
H H L	: EDIT START
H L H	: PREVIEW
H L L	: REVIEW
L H H	: NON
L H L	: RETURN
L L H	: GO TO
L L L	: NON

EDITOR SIDE

34PIN CONNECTOR PIN 10

(EDITOR)

SW1 ~ SW44: EVQPR04K

P6006

SEG SCAN 0 - P	1
SEG SCAN 1 - P	2
SEG SCAN 2 - P	3
SEG SCAN 3 - P	4
SEG SCAN 4 - P	5
SEG SCAN 5 - P	6
SEG SCAN 6 - P	7
SEG SCAN 7 - P	8
SEG SCAN 8 - P	9
SEG SCAN 9 - P	10
SEG SCAN 10 - P	11
SEG SCAN 11 - P	12

P6005

SEG a - N	1
SEG b - N	2
SEG c - N	3
SEG d - N	4
SEG e - N	5
SEG f - N	6
SEG g - N	7
DOT	8

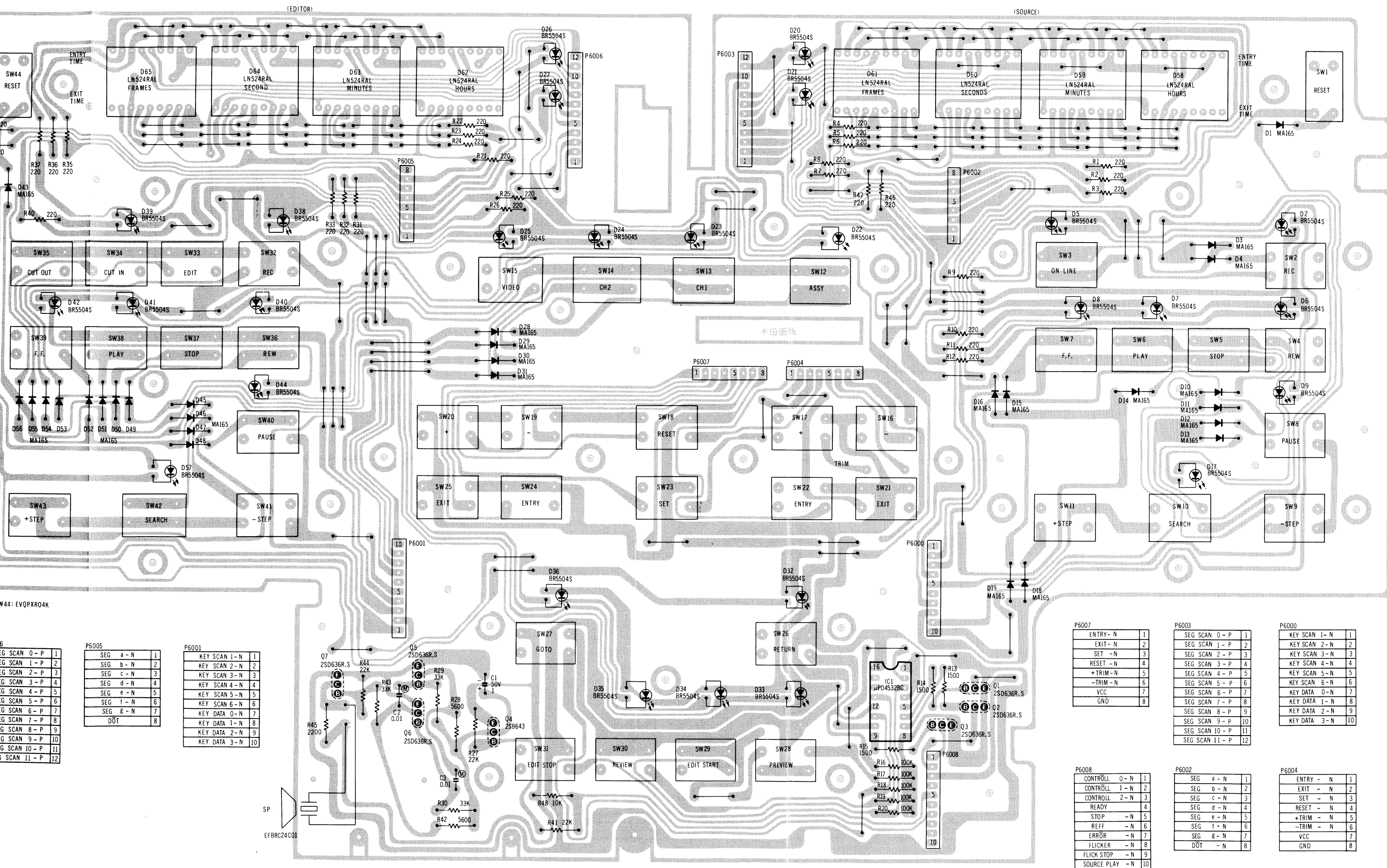
P6001

KEY SCAN 1 - N	1
KEY SCAN 2 - N	2
KEY SCAN 3 - N	3
KEY SCAN 4 - N	4
KEY SCAN 5 - N	5
KEY SCAN 6 - N	6
KEY DATA 0 - N	7
KEY DATA 1 - N	8
KEY DATA 2 - N	9
KEY DATA 3 - N	10

SP
EFBRC24C01



Y & KEY BOARD C.B.A. (VEP00846)



W44: EVQPR04K

6	SEG SCAN 0 - P	1
7	SEG SCAN 1 - P	2
8	SEG SCAN 2 - P	3
9	SEG SCAN 3 - P	4
10	SEG SCAN 4 - P	5
11	SEG SCAN 5 - P	6
12	SEG SCAN 6 - P	7
13	SEG SCAN 7 - P	8
14	SEG SCAN 8 - P	9
15	SEG SCAN 9 - P	10
16	SEG SCAN 10 - P	11
17	SEG SCAN 11 - P	12

P6005	SEG a - N	1
	SEG b - N	2
	SEG c - N	3
	SEG d - N	4
	SEG e - N	5
	SEG f - N	6
	SEG g - N	7
	DOT	8

P6001	KEY SCAN 1 - N	1
	KEY SCAN 2 - N	2
	KEY SCAN 3 - N	3
	KEY SCAN 4 - N	4
	KEY SCAN 5 - N	5
	KEY SCAN 6 - N	6
	KEY DATA 0 - N	7
	KEY DATA 1 - N	8
	KEY DATA 2 - N	9
	KEY DATA 3 - N	10

P6007	ENTRY - N	1
	EXIT - N	2
	SET - N	3
	RESET - N	4
	+TRIM - N	5
	-TRIM - N	6
	VCC	7
	GND	8

P6003	SEG SCAN 0 - P	1
	SEG SCAN 1 - P	2
	SEG SCAN 2 - P	3
	SEG SCAN 3 - P	4
	SEG SCAN 4 - P	5
	SEG SCAN 5 - P	6
	SEG SCAN 6 - P	7
	SEG SCAN 7 - P	8
	SEG SCAN 8 - P	9
	SEG SCAN 9 - P	10
	SEG SCAN 10 - P	11
	SEG SCAN 11 - P	12

P6000	KEY SCAN 1 - N	1
	KEY SCAN 2 - N	2
	KEY SCAN 3 - N	3
	KEY SCAN 4 - N	4
	KEY SCAN 5 - N	5
	KEY DATA 0 - N	6
	KEY DATA 1 - N	7
	KEY DATA 2 - N	8
	KEY DATA 3 - N	9
	KEY DATA 4 - N	10

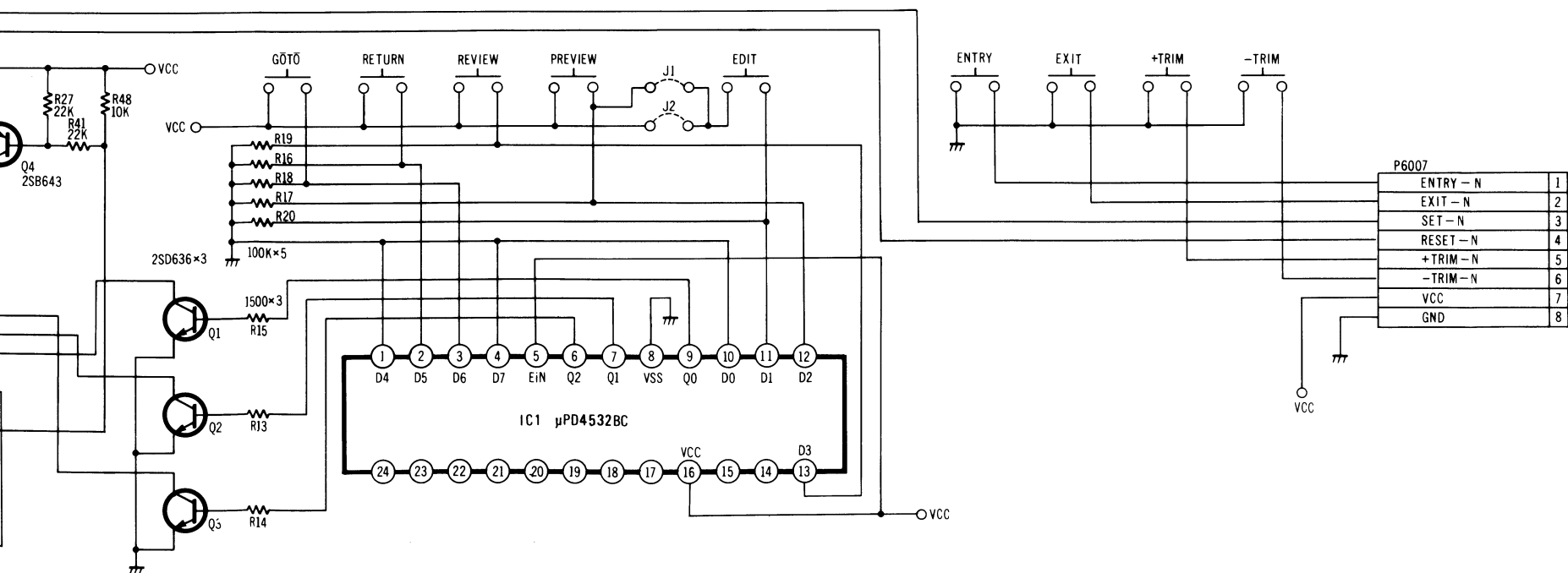
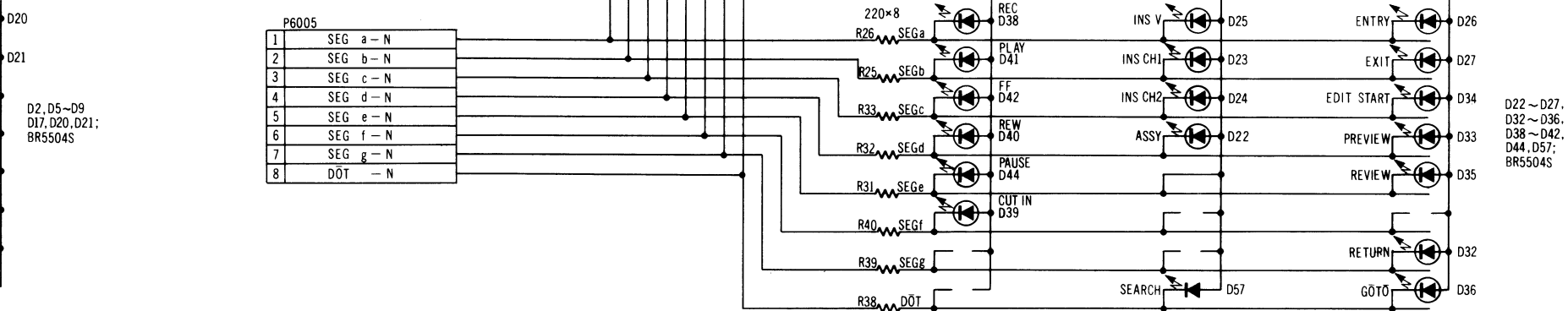
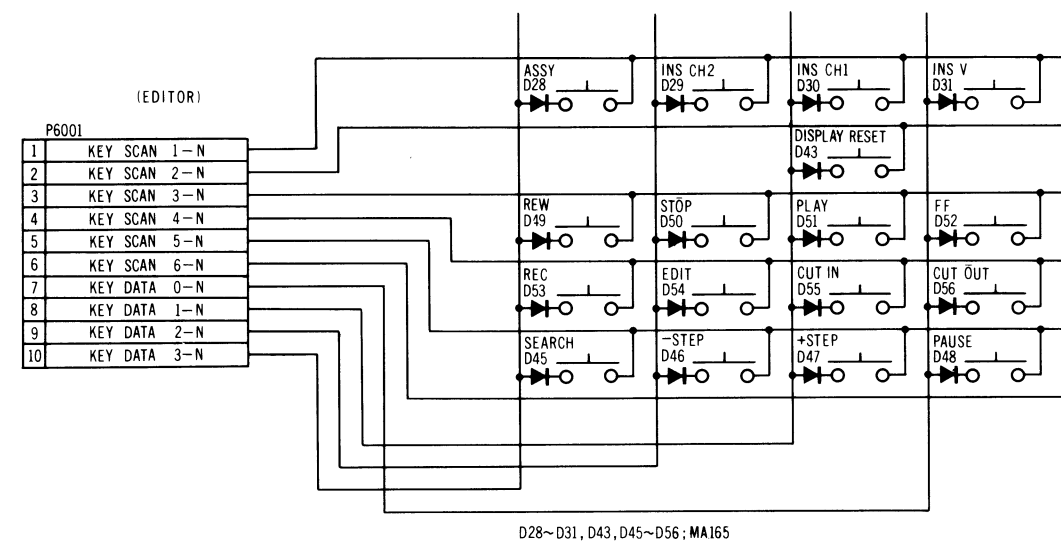
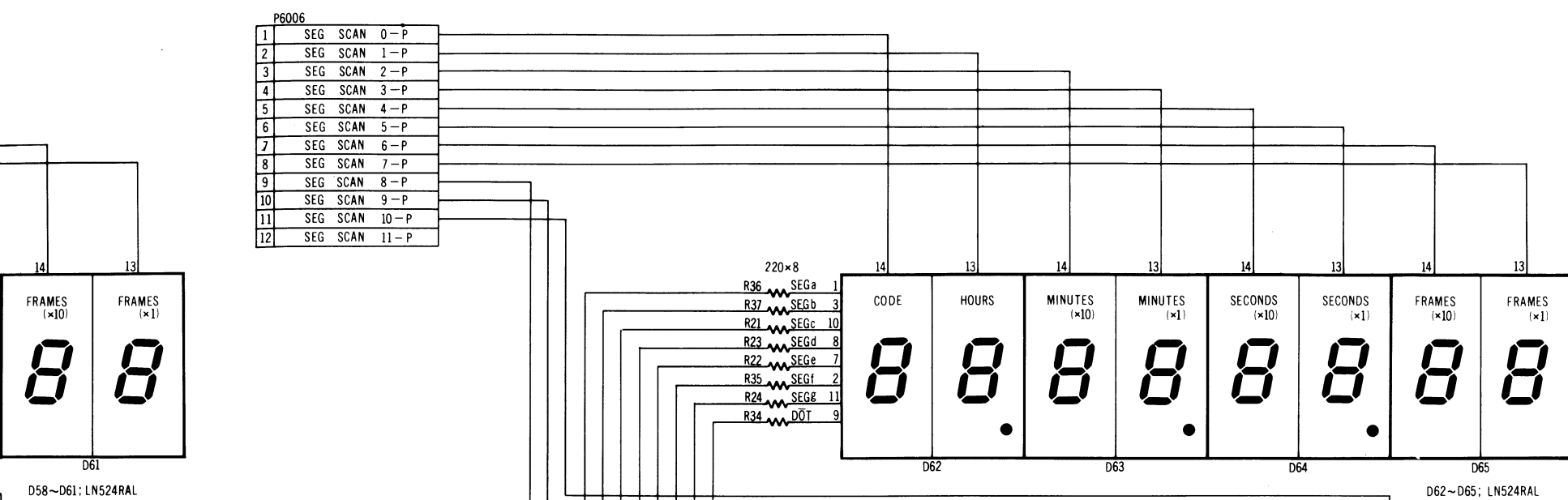
P6008	CONTRÖLL 0 - N	1
	CONTRÖLL 1 - N	2
	CONTRÖLL 2 - N	3
	READY	4
	STOP - N	5
	REFF - N	6
	ERROR - N	7
	FLICKER - N	8
	FLICK STOP - N	9
	SOURCE PLAY - N	10

P6002	SEG a - N	1
	SEG b - N	2
	SEG c - N	3
	SEG d - N	4
	SEG e - N	5
	SEG f - N	6
	SEG g - N	7
	DOT - N	8

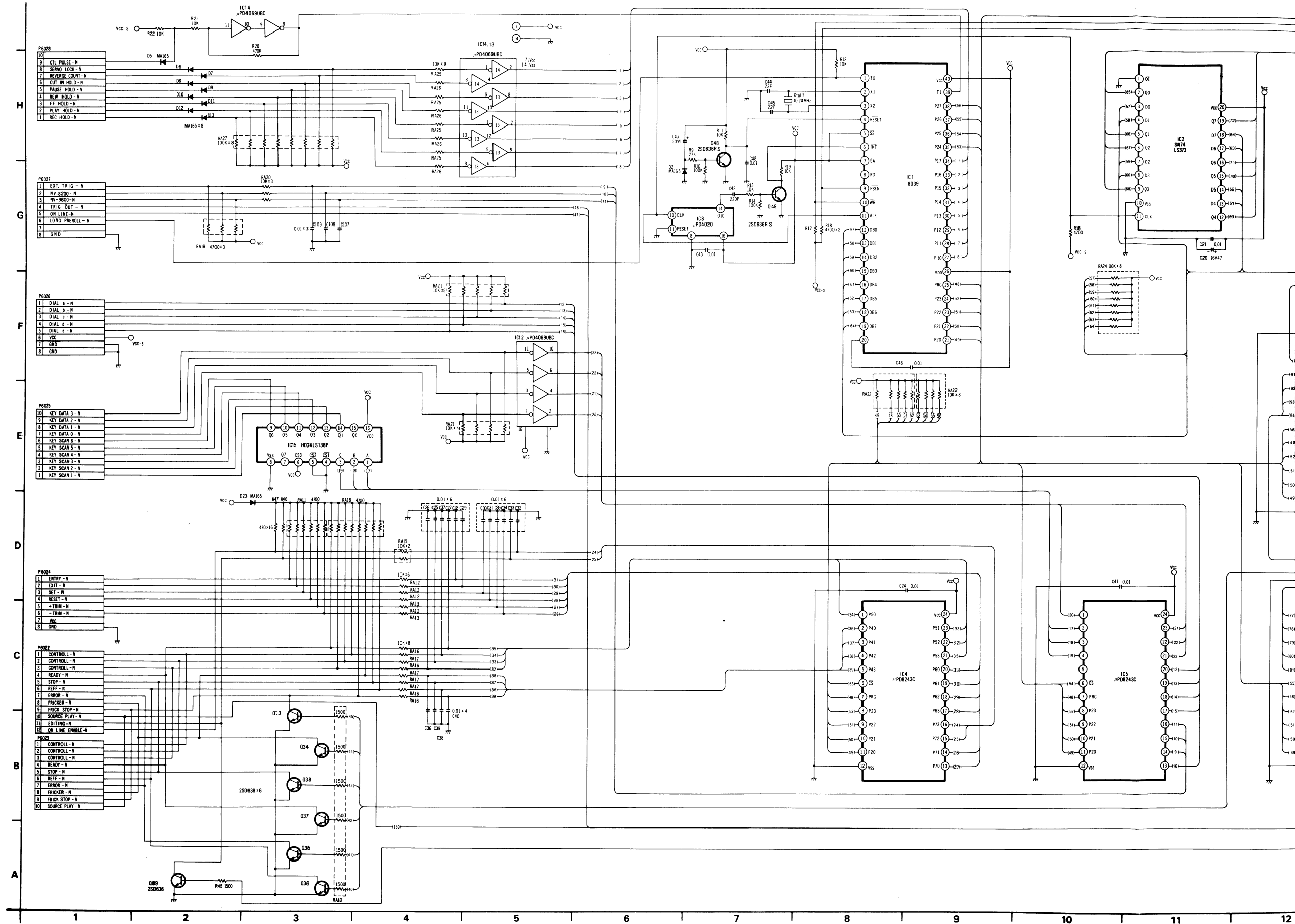
P6004	ENTRY - N	1
	EXIT - N	2
	SET - N	3
	RESET - N	4
	+TRIM - N	5
	-TRIM - N	6
	VCC	7
	GND	8

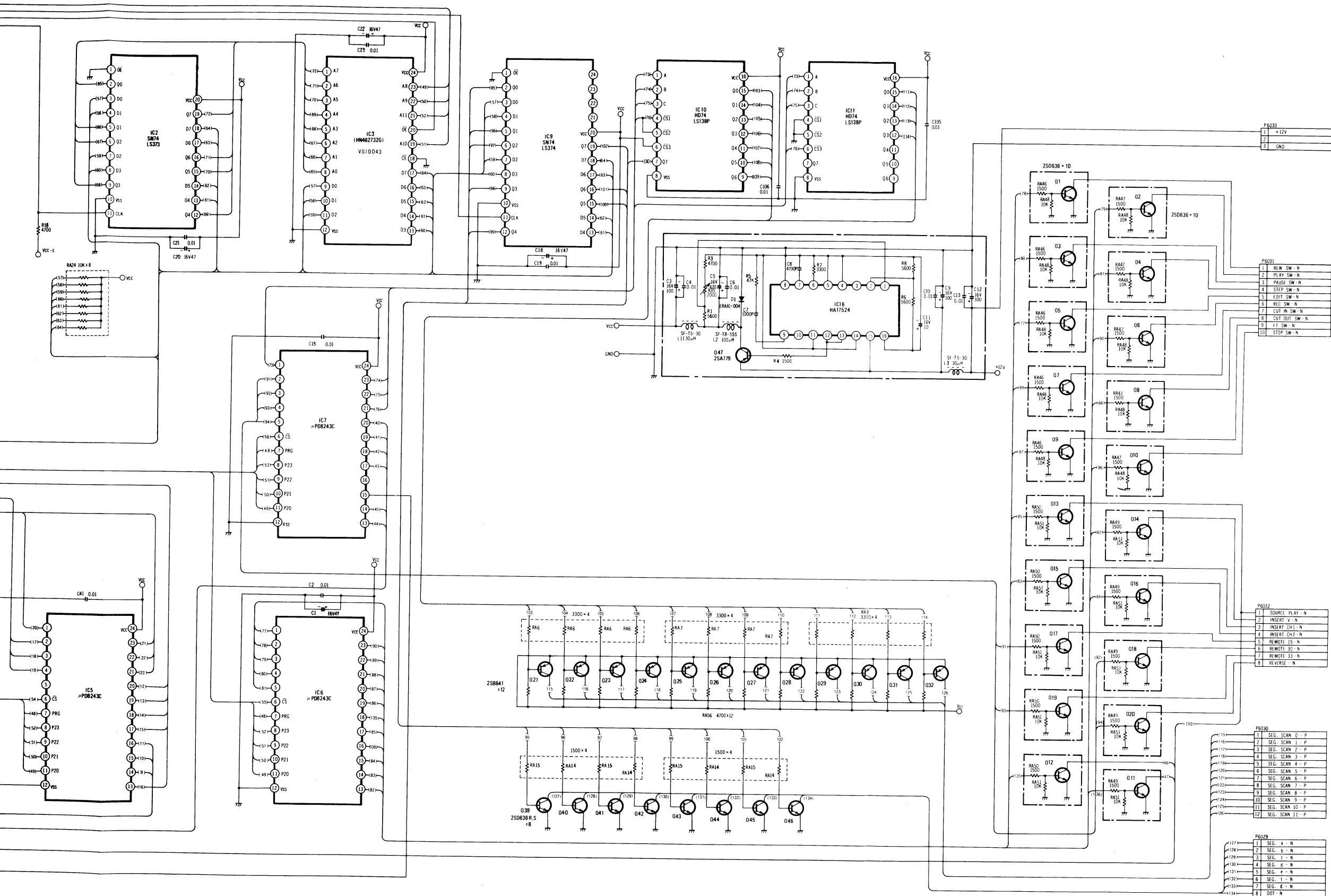
E



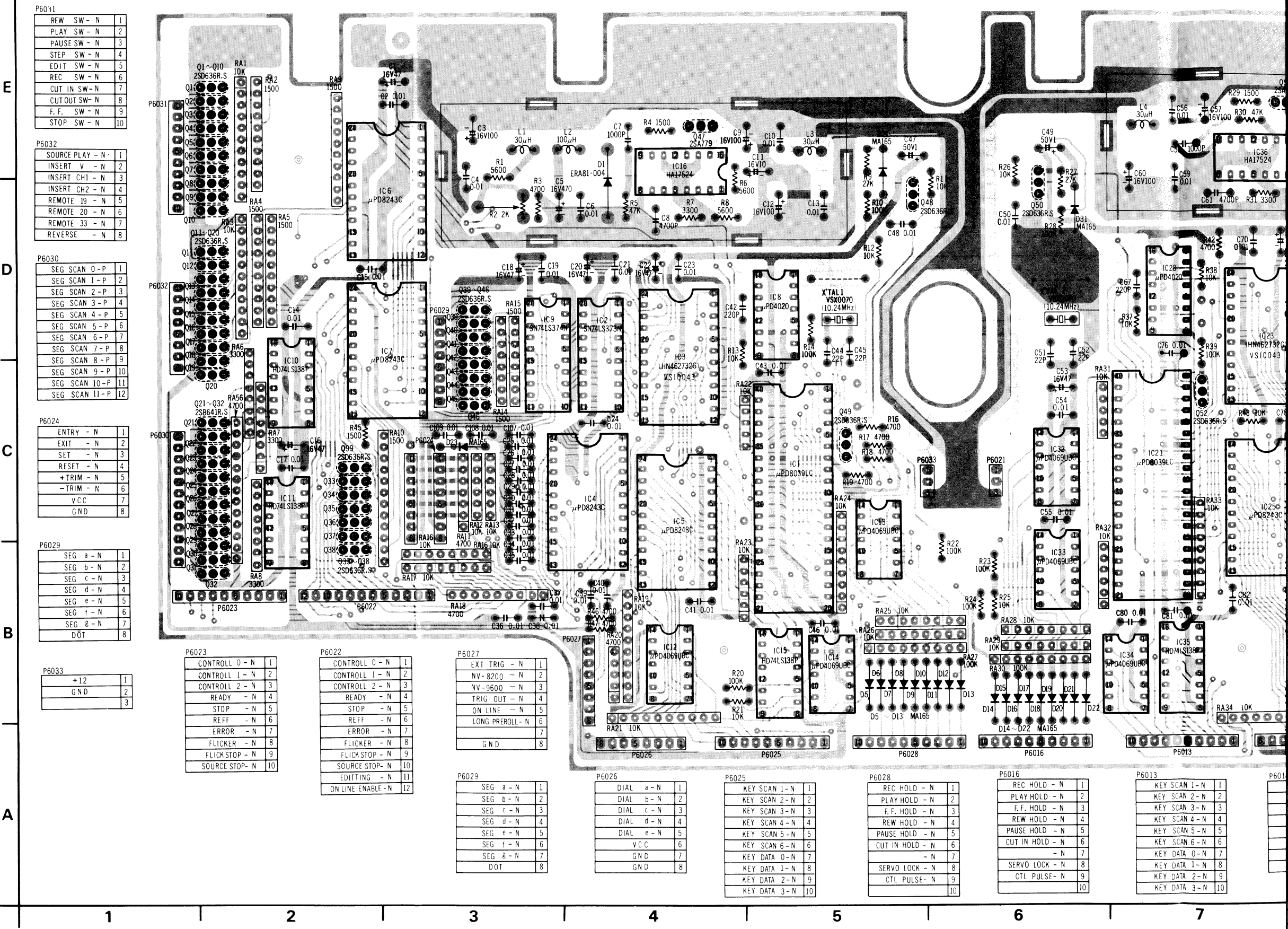


CPU SCHEMATIC DIAGRAM (EDITOR CONTROL)





CPU C.B.A. (VEP00845A)



P6031

REW SW - N	1
PLAY SW - N	2
PAUSE SW - N	3
STEP SW - N	4
EDIT SW - N	5
REC SW - N	6
CUT IN SW - N	7
CUT OUT SW - N	8
F.F. SW - N	9
STOP SW - N	10

P6032

SOURCE PLAY - N	1
INSERT V - N	2
INSERT CH1 - N	3
INSERT CH2 - N	4
REMOTE 19 - N	5
REMOTE 20 - N	6
REMOTE 33 - N	7
REVERSE - N	8

P6030

SEG SCAN 0 - P	1
SEG SCAN 1 - P	2
SEG SCAN 2 - P	3
SEG SCAN 3 - P	4
SEG SCAN 4 - P	5
SEG SCAN 5 - P	6
SEG SCAN 6 - P	7
SEG SCAN 7 - P	8
SEG SCAN 8 - P	9
SEG SCAN 9 - P	10
SEG SCAN 10 - P	11
SEG SCAN 11 - P	12

P6024

ENTRY - N	1
EXIT - N	2
SET - N	3
RESET - N	4
+TRIM - N	5
-TRIM - N	6
VCC	7
GND	8

P6029

SEG a - N	1
SEG b - N	2
SEG c - N	3
SEG d - N	4
SEG e - N	5
SEG f - N	6
SEG g - N	7
DOT	8

P6033

+12	1
GND	2
	3

P6023

CONTROLL 0 - N	1
CONTROLL 1 - N	2
CONTROLL 2 - N	3
READY - N	4
STOP - N	5
REFF - N	6
ERROR - N	7
FLICKER - N	8
FLICK STOP - N	9
SOURCE STOP - N	10

P6022

CONTROLL 0 - N	1
CONTROLL 1 - N	2
CONTROLL 2 - N	3
READY - N	4
STOP - N	5
REFF - N	6
ERROR - N	7
FLICKER - N	8
FLICK STOP - N	9
SOURCE STOP - N	10
EDITING - N	11
ON LINE ENABLE - N	12

P6027

EXT TRIG - N	1
NV-8200 - N	2
NV-9600 - N	3
TRIG OUT - N	4
ON LINE - N	5
LONG PREROLL - N	6
GND	7
	8

P6029

SEG a - N	1
SEG b - N	2
SEG c - N	3
SEG d - N	4
SEG e - N	5
SEG f - N	6
SEG g - N	7
DOT	8

P6026

DIAL a - N	1
DIAL b - N	2
DIAL c - N	3
DIAL d - N	4
DIAL e - N	5
VCC	6
GND	7
GND	8

P6025

KEY SCAN 1 - N	1
KEY SCAN 2 - N	2
KEY SCAN 3 - N	3
KEY SCAN 4 - N	4
KEY SCAN 5 - N	5
KEY SCAN 6 - N	6
KEY DATA 0 - N	7
KEY DATA 1 - N	8
KEY DATA 2 - N	9
KEY DATA 3 - N	10

P6028

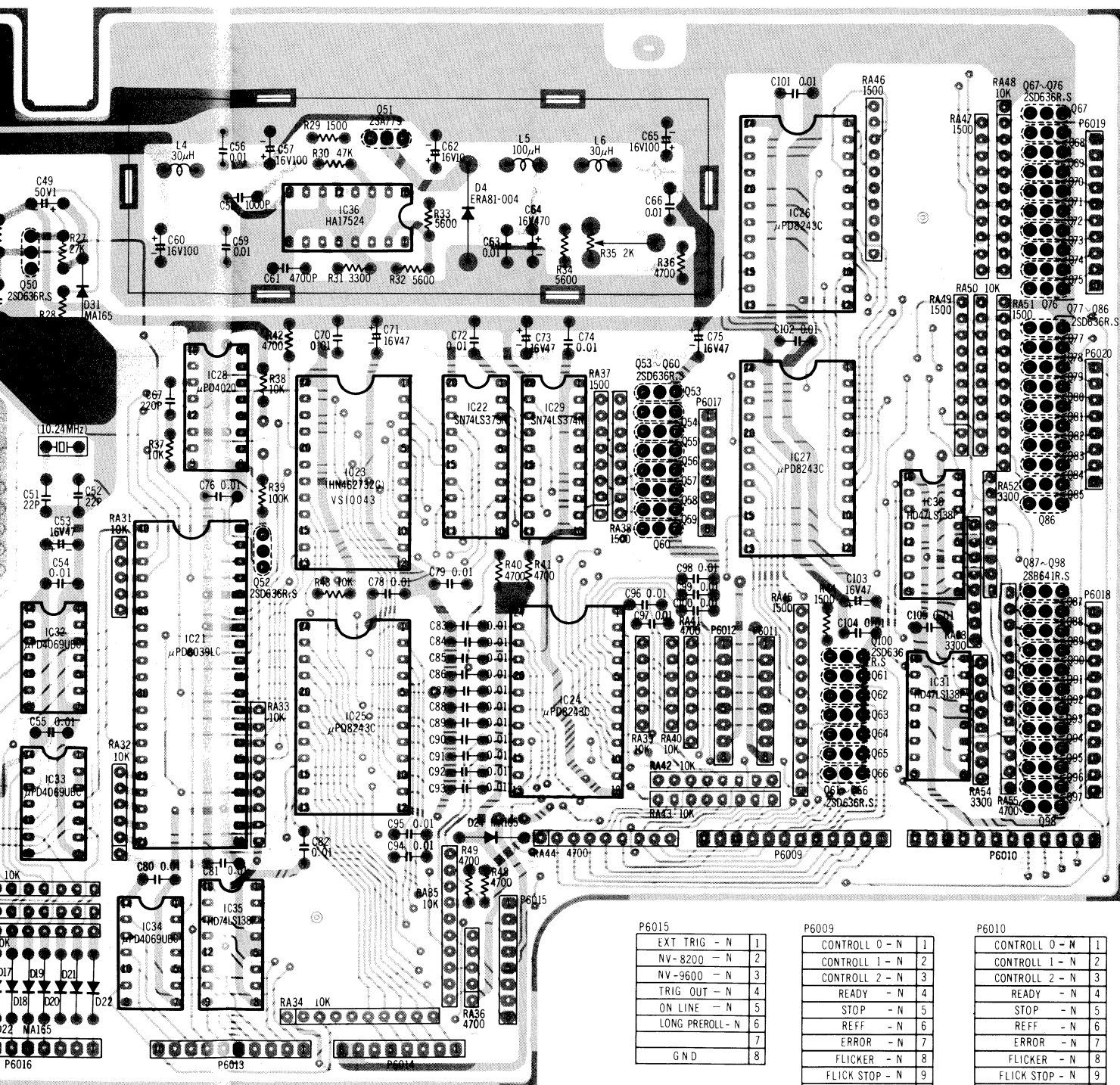
REC HOLD - N	1
PLAY HOLD - N	2
F.F. HOLD - N	3
REW HOLD - N	4
PAUSE HOLD - N	5
CUT IN HOLD - N	6
- N	7
SERVO LOCK - N	8
CTL PULSE - N	9
	10

P6016

REC HOLD - N	1
PLAY HOLD - N	2
F.F. HOLD - N	3
REW HOLD - N	4
PAUSE HOLD - N	5
CUT IN HOLD - N	6
- N	7
SERVO LOCK - N	8
CTL PULSE - N	9
	10

P6013

KEY SCAN 1 - N	1
KEY SCAN 2 - N	2
KEY SCAN 3 - N	3
KEY SCAN 4 - N	4
KEY SCAN 5 - N	5
KEY SCAN 6 - N	6
KEY DATA 0 - N	7
KEY DATA 1 - N	8
KEY DATA 2 - N	9
KEY DATA 3 - N	10



C HOLD - N	1
Y HOLD - N	2
E HOLD - N	3
W HOLD - N	4
E HOLD - N	5
N HOLD - N	6
- N	7
LOCK - N	8
L PULSE - N	9
	10

P6013	
KEY SCAN 1 - N	1
KEY SCAN 2 - N	2
KEY SCAN 3 - N	3
KEY SCAN 4 - N	4
KEY SCAN 5 - N	5
KEY SCAN 6 - N	6
KEY DATA 0 - N	7
KEY DATA 1 - N	8
KEY DATA 2 - N	9
KEY DATA 3 - N	10

P6014	
DIAL a - N	1
DIAL b - N	2
DIAL c - N	3
DIAL d - N	4
DIAL e - N	5
VCC	6
GND	7
GND	8

P6015	
EXT TRIG - N	1
NV-8200 - N	2
NV-9600 - N	3
TRIG OUT - N	4
ON LINE - N	5
LONG PREROLL - N	6
	7
GND	8

P6009	
CONTROLL 0 - N	1
CONTROLL 1 - N	2
CONTROLL 2 - N	3
READY - N	4
STOP - N	5
REFF - N	6
ERROR - N	7
FLICKER - N	8
FLICK STOP - N	9
SOURCE STOP - N	10
EDITTING - N	11
ON LINE ENABLE - N	12

P6010	
CONTROLL 0 - N	1
CONTROLL 1 - N	2
CONTROLL 2 - N	3
READY - N	4
STOP - N	5
REFF - N	6
ERROR - N	7
FLICKER - N	8
FLICK STOP - N	9
SOURCE STOP - N	10
EDITTING - N	11
ON LINE ENABLE - N	12

P6017	
SEG a - N	1
SEG b - N	2
SEG c - N	3
SEG d - N	4
SEG e - N	5
SEG f - N	6
SEG g - N	7
DOT	8

P6021	
+12	1
GND	2
	3

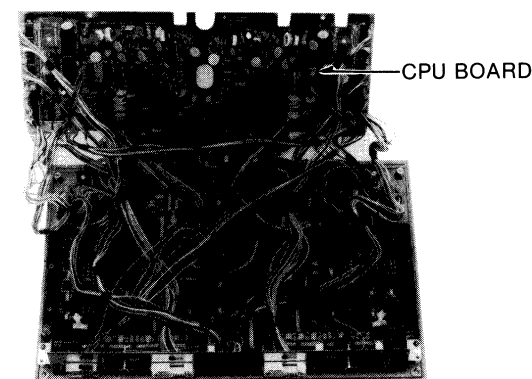
P6019	
REW SW - N	1
PLAY SW - N	2
PAUSE SW - N	3
STEP SW - N	4
EDIT SW - N	5
REC SW - N	6
CUT IN SW - N	7
CUT OUT SW - N	8
F.F. SW - N	9
STOP SW - N	10

P6020	
SOURCE PLAY - N	1
INSERT V - N	2
INSERT CH1 - N	3
INSERT CH2 - N	4
REMOTE 19 - N	5
REMOTE 20 - N	6
REMOTE 33 - N	7
REVERSE - N	8

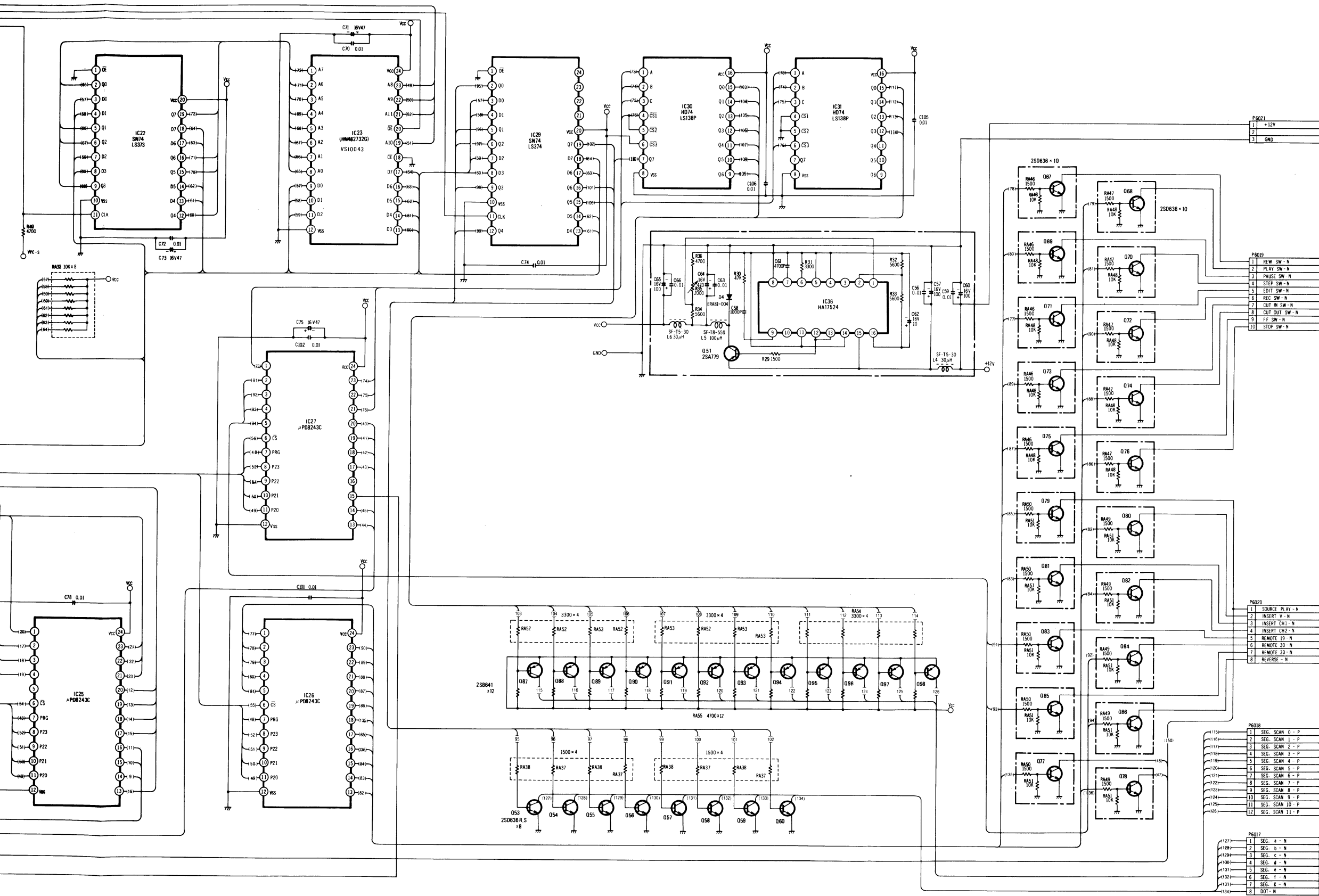
P6018	
SEG SCAN 0 - P	1
SEG SCAN 1 - P	2
SEG SCAN 2 - P	3
SEG SCAN 3 - P	4
SEG SCAN 4 - P	5
SEG SCAN 5 - P	6
SEG SCAN 6 - P	7
SEG SCAN 7 - P	8
SEG SCAN 8 - P	9
SEG SCAN 9 - P	10
SEG SCAN 10 - P	11
SEG SCAN 11 - P	12

P6011	
ENTRY - N	1
EXIT - N	2
SET - N	3
RESET - N	4
+TRIM - N	5
-TRIM - N	6
VCC	7
GND	8

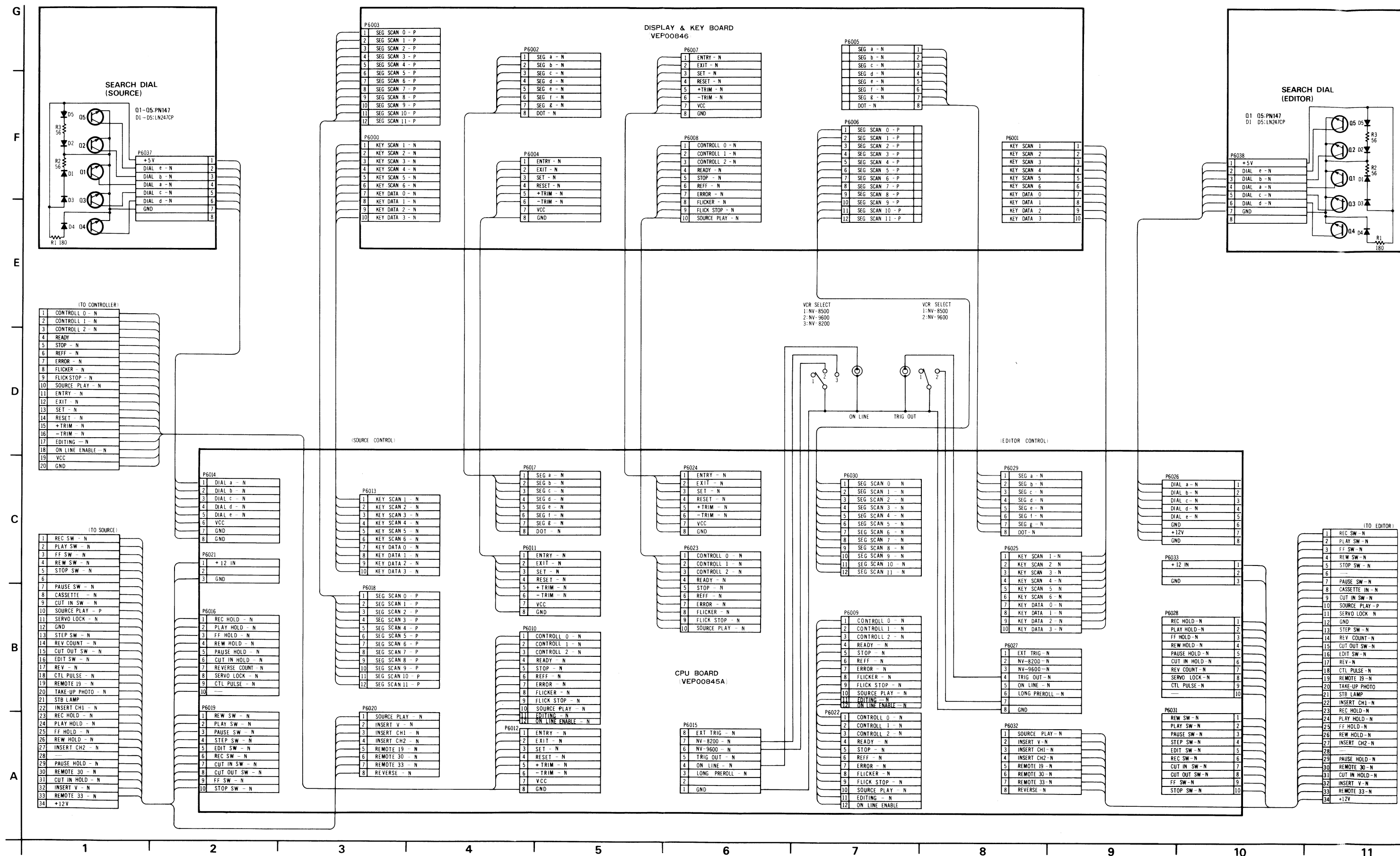
P6012	
ENTRY - N	1
EXIT - N	2
SET - N	3
RESET - N	4
+TRIM - N	5
-TRIM - N	6
VCC	7
GND	8



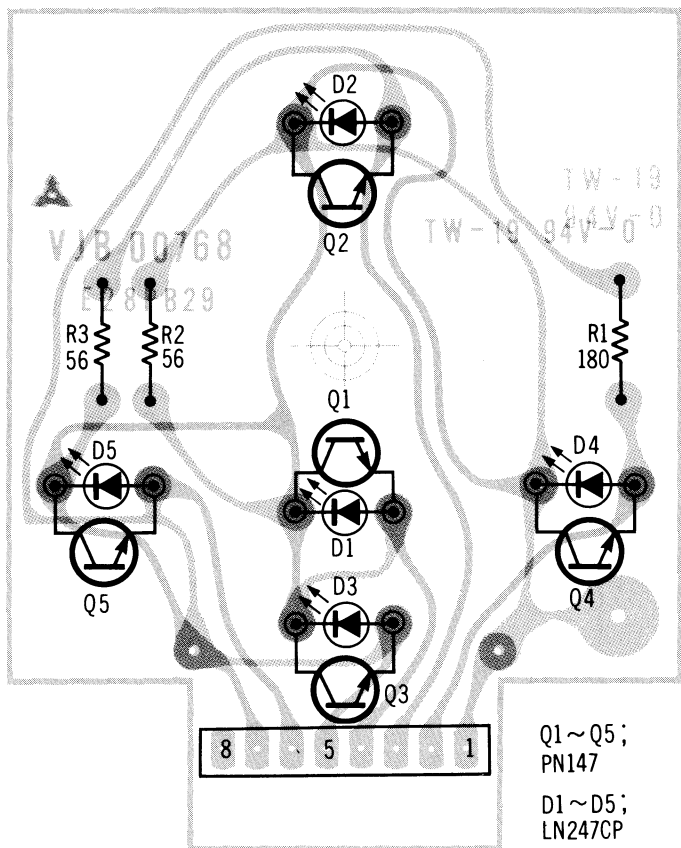
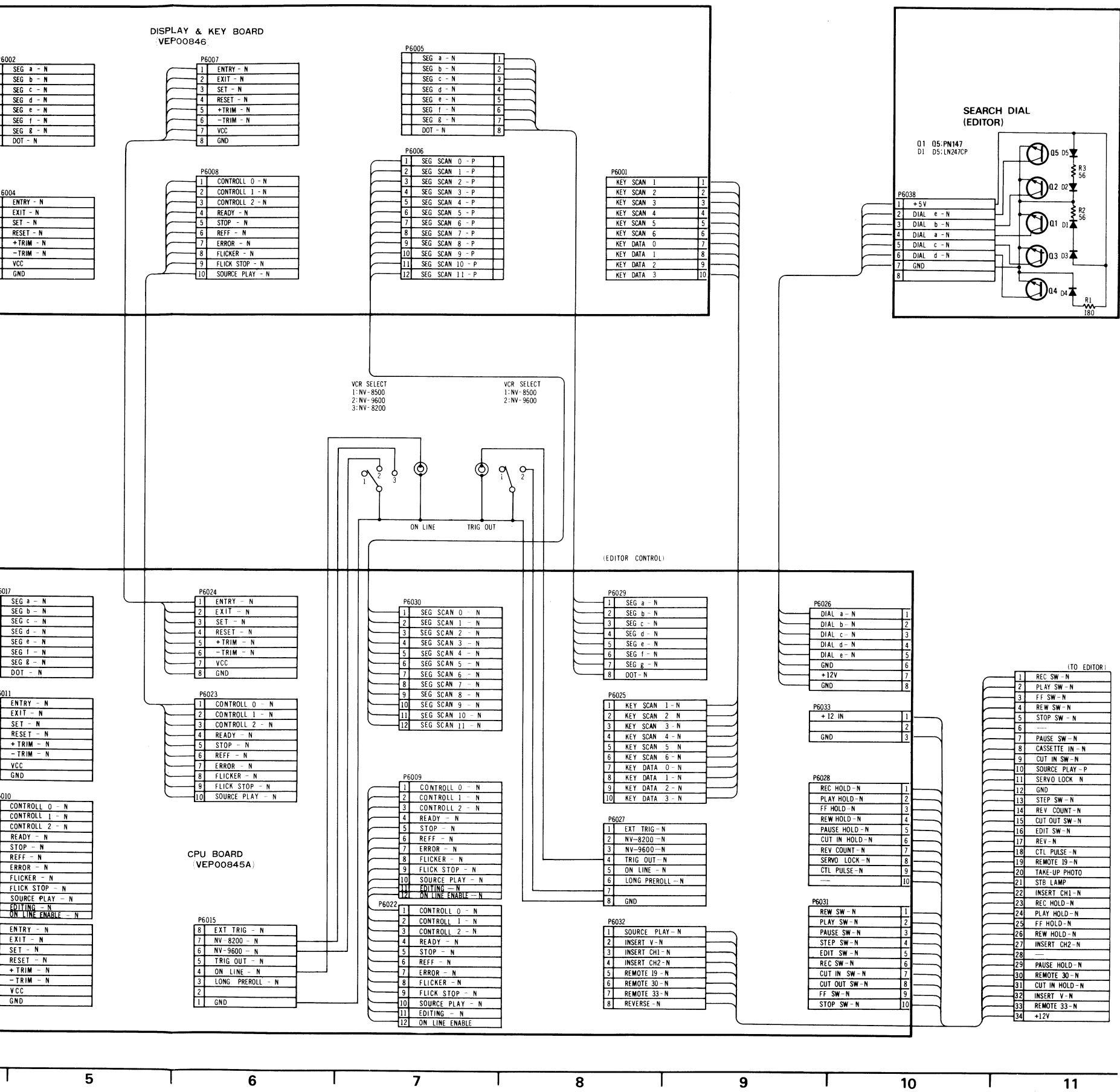
CPU			
Q1	E-2	Q68	E-10
Q2	E-2	Q69	E-10
Q3	E-2	Q70	E-10
Q4	E-2	Q71	E-10
Q5	E-2	Q72	E-10
Q6	E-2	Q73	E-10
Q7	E-2	Q74	D-10
Q8	D-2	Q75	D-10
Q9	D-2	Q76	D-10
Q10	D-2	Q77	D-10
Q11	D-2	Q78	D-10
Q12	D-2	Q79	D-10
Q13	D-2	Q80	D-10
Q14	D-2	Q81	D-10
Q15	D-2	Q82	D-10
Q16	D-2	Q83	D-10
Q17	D-2	Q84	D-10
Q18	C-2	Q85	C-10
Q19	C-2	Q86	C-10
Q20	C-2	Q87	C-10
Q21	C-2	Q88	C-10
Q22	C-2	Q89	C-10
Q23	C-2	Q90	C-10
Q24	C-2	Q91	C-10
Q25	C-2	Q92	C-10
Q26	C-2	Q93	C-10
Q27	C-2	Q94	C-10
Q28	C-2	Q95	C-10
Q29	B-2	Q96	B-10
Q30	B-2	Q97	B-10
Q31	B-2	Q98	B-10
Q32	C-2	Q99	C-2
Q33	C-2	Q100	C-9
Q34	C-2		
Q35	C-2	IC1	C-5
Q36	B-2	IC2	C-4
Q37	B-2	IC3	C-4
Q38	B-2	IC4	C-4
Q39	D-3	IC5	C-4
Q40	D-3	IC6	D-3
Q41	D-3	IC7	D-3
Q42	C-3	IC8	D-5
Q43	C-3	IC9	D-3
Q44	C-3	IC10	C-2
Q45	C-3	IC11	C-2
Q46	C-3	IC12	B-4
Q47	E-4	IC13	C-5
Q48	D-5	IC14	B-5
Q49	C-5	IC15	B-5
Q50	D-6	IC16	E-4
Q51	E-8	IC21	C-7
Q52	C-7	IC22	D-8
Q53	D-9	IC23	D-7
Q54	D-9	IC24	C-8
Q55	D-9	IC25	C-7
Q56	D-9	IC26	E-9
Q57	D-9	IC27	D-9
Q58	C-9	IC28	D-7
Q59	C-9	IC29	D-8
Q60	C-9	IC30	C-10
Q61	C-9	IC31	C-10
Q62	C-9	IC32	C-6
Q63	C-9	IC33	B-6
Q64	C-9	IC34	B-7
Q65	C-9	IC35	B-7
Q66	C-9	IC36	E-7
Q67	E-10		



INTERCONNECTION SCHEMATIC DIAGRAM

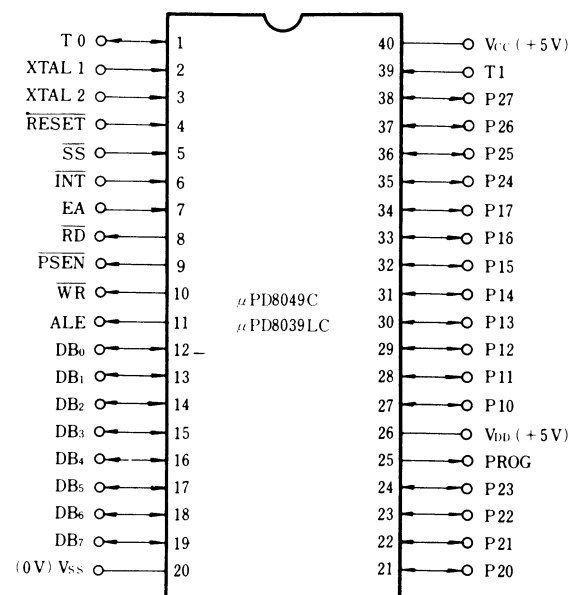


SEARCH DIAL C.B. (VJB00768)



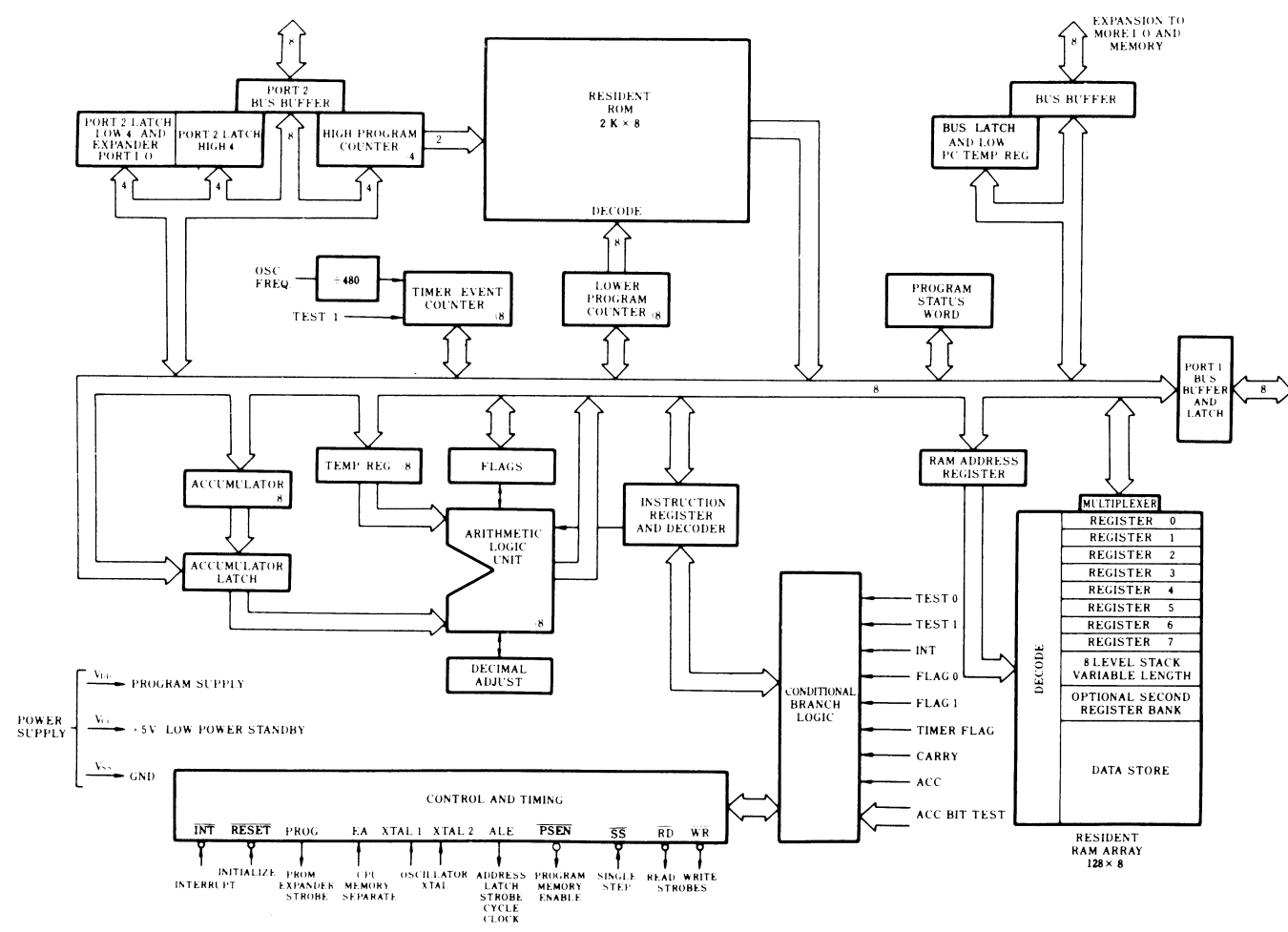
IC INFORMATION

μ PD8039LC
1 Chip • 8 bit • Microcomputer
Pin Configurations
(Top View)

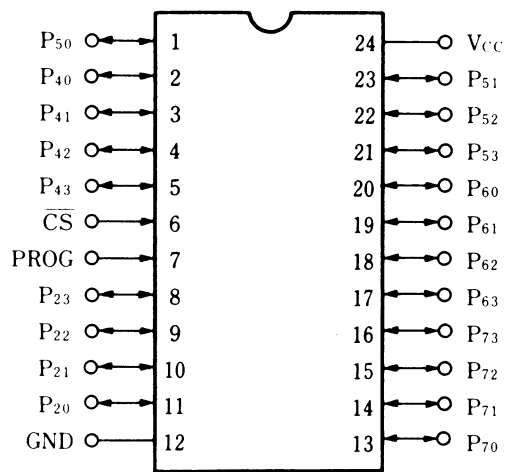


Pin Function
P10~P17 : I/O Port (Port 1)
P20~P27 : I/O Port (Port 2)
DB0~DB7 : DATA BUS
T0, T1 : Test
INT : Interrupt
RD : Read
WR : Write
ALE : Address Latch Enable
PSEN : Program Store Enable
RESET : Reset
SS : Single Step
EA : External Access
XTAL 1, 2 : X'tal Input

Block Diagram

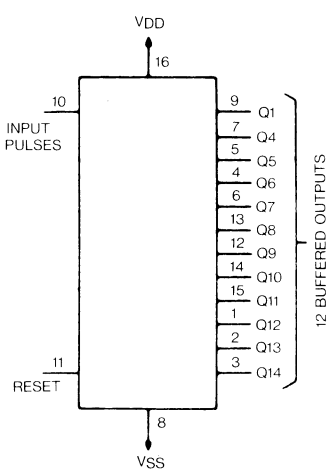


μ PD8243C
8 bit Position Scaler
Pin Configurations
(Top View)

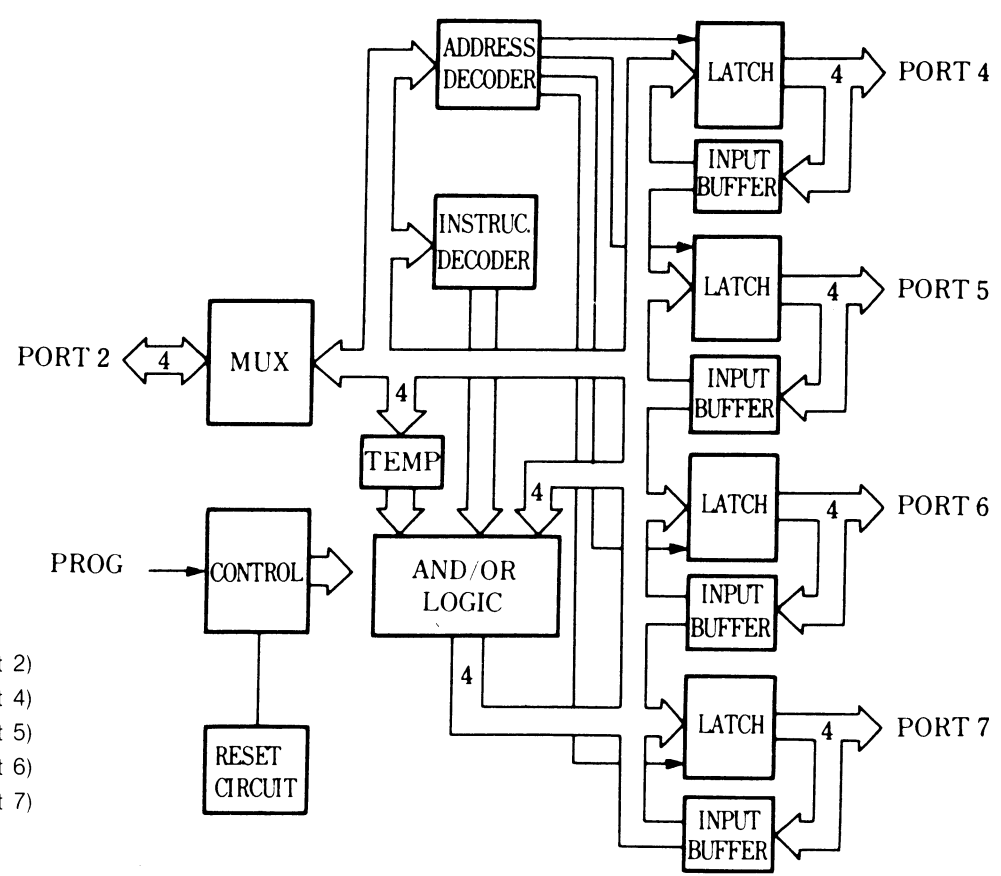


Pin Function
P20~P23 : Input Output port (Port 2)
P40~P43 : Input Output port (Port 4)
P50~P53 : Input Output port (Port 5)
P60~P63 : Input Output port (Port 6)
P70~P73 : Input Output port (Port 7)
CS : Chip Select
PROG : Program pulse

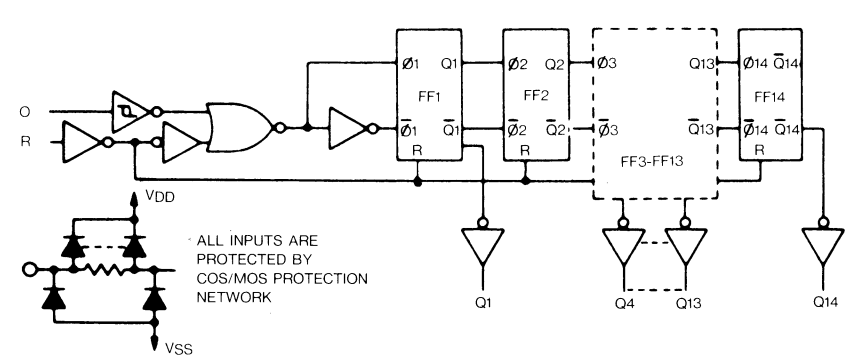
CMOS IC
 μ PD4020UBC
14-Stage Binary Ripple Counter
Pin Configurations



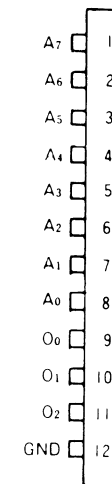
Block Diagram



Block Diagram



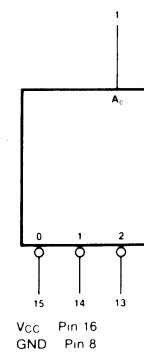
HN462732G
32,768 bit (4096
Pin Configura
(Top View)



Pin Function
A0~A11 : Address
O0~O7 : Data I/O
CE : Chip Enable
OE/Vpp : Output Enable

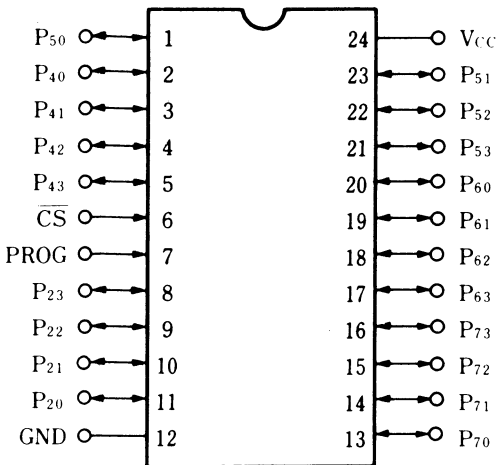
TTL IC
HD74LS138
1-of-8 Decoder
Pin Configura

Logic Sym



μPD8243C

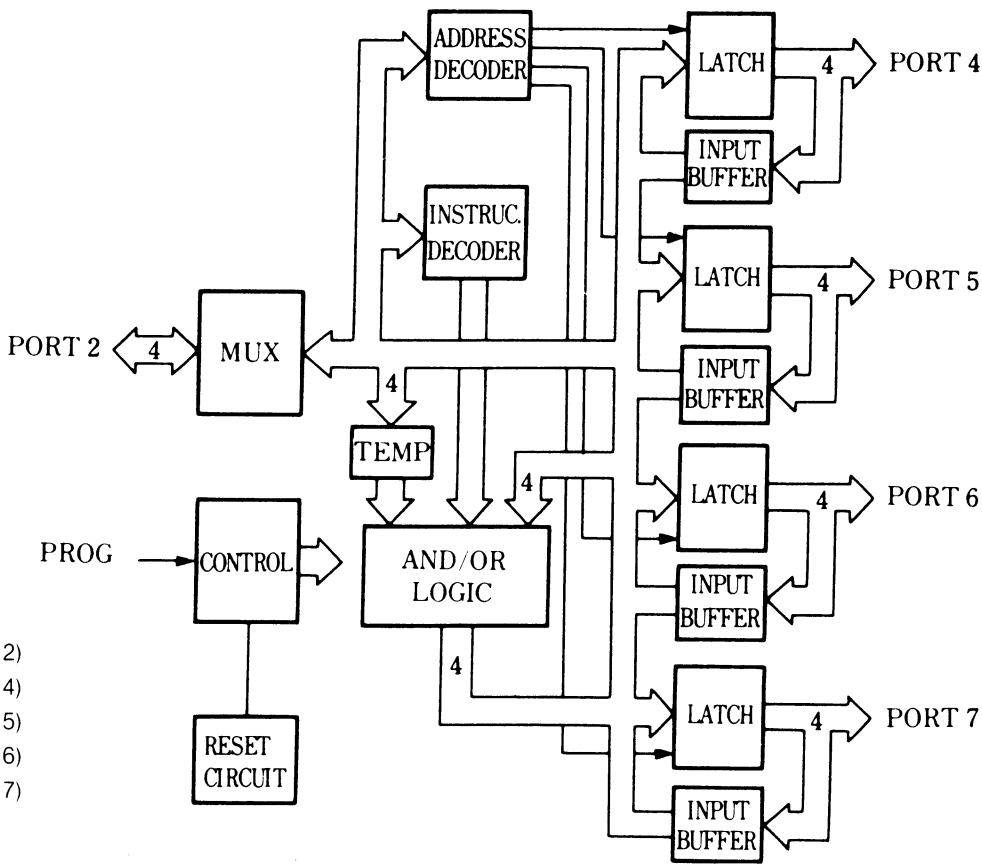
8 bit Position Scaler
Pin Configurations
(Top View)



Pin Function

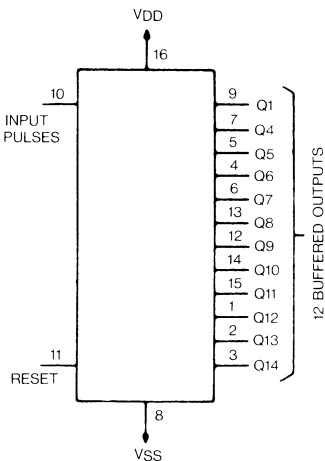
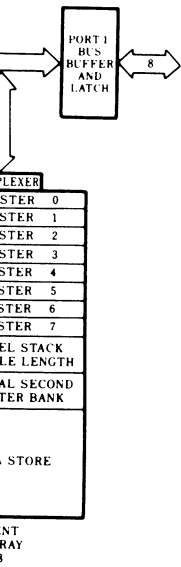
P₂₀~P₂₃: Input Output port (Port 2)
P₄₀~P₄₃: Input Output port (Port 4)
P₅₀~P₅₃: Input Output port (Port 5)
P₆₀~P₆₃: Input Output port (Port 6)
P₇₀~P₇₃: Input Output port (Port 7)
CS : Chip Select
PROG : Program pulse

Block Diagram

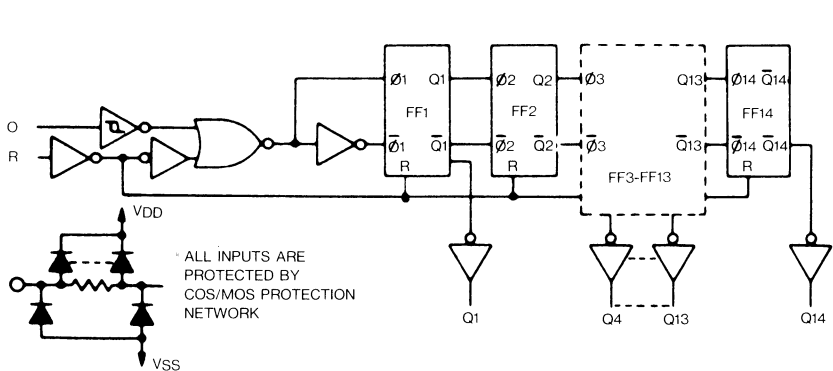


CMOS IC
μPD4020UBC

14-Stage Binary Ripple Counter
Pin Configurations

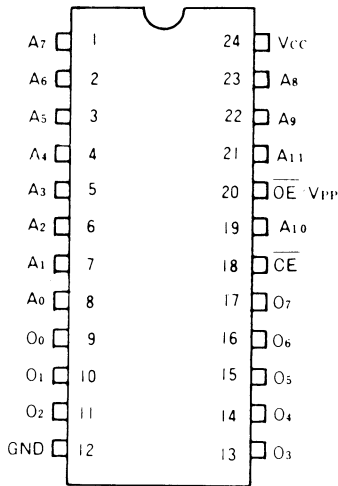


Block Diagram



HN462732G

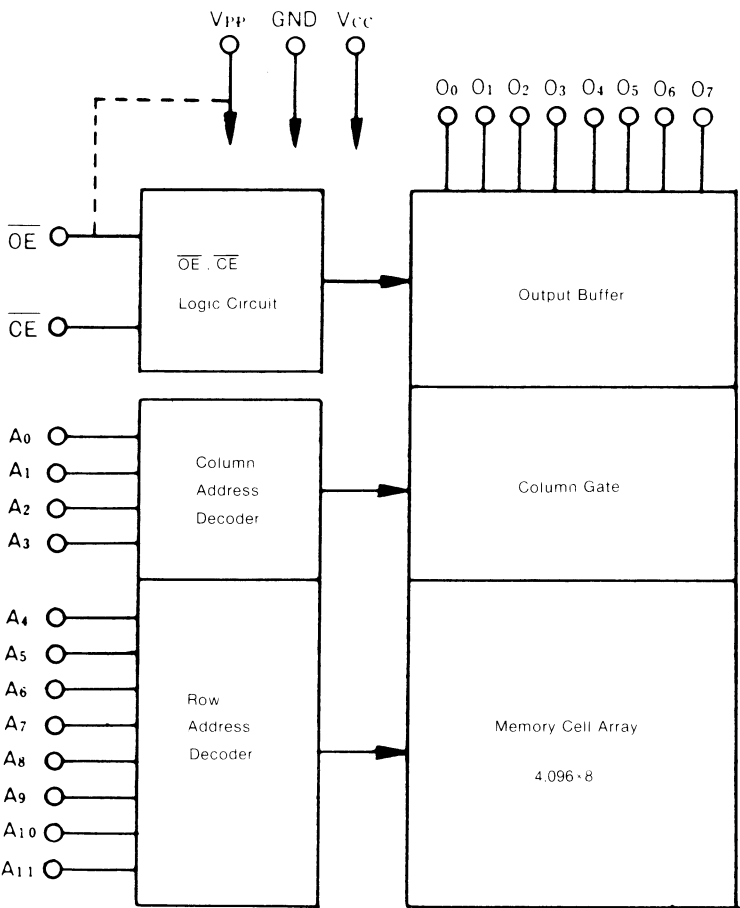
32,768 bit (4096 Word X8 bit) EPROM
Pin Configurations
(Top View)



Pin Function

A₀~A₁₁ : Address Input
O₀~O₇ : Data Input/Output
CE : Chip Enable
OE/Vpp : Output Enable/Program Pulse Input

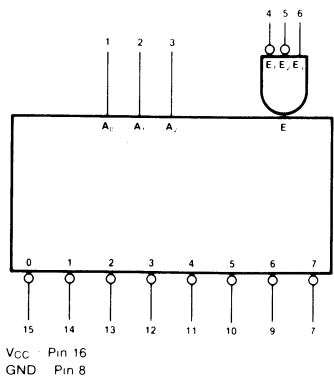
Block Diagram



TTL IC
HD74LS138P

1-of-8 Decoder/Demultiplexer
Pin Configurations

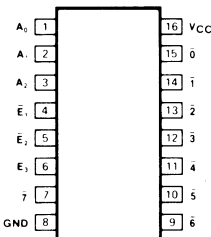
Logic Symbol



Pin Function

A₀~A₂ : Address inputs
E₁, E₂ : Enable (Active LOW) inputs
E₃ : Enable (Active HIGH) input
0~7 : Decoder outputs

(Top View)



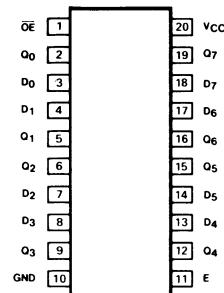
Truth Table

INPUTS						OUTPUTS							
$\bar{E}_1$	$\bar{E}_2$	E_3	A_0	A_1	A_2	$\bar{0}$	$\bar{1}$	$\bar{2}$	$\bar{3}$	$\bar{4}$	$\bar{5}$	$\bar{6}$	$\bar{7}$
H	X	X	X	X	X	H	H	H	H	H	H	H	H
X	H	X	X	X	X	H	H	H	H	H	H	H	H
X	X	L	X	X	X	H	H	H	H	H	H	H	H
L	L	H	L	L	L	L	H	H	H	H	H	H	H
L	L	H	H	L	L	H	L	H	H	H	H	H	H
L	L	H	L	H	L	H	H	L	H	H	H	H	H
L	L	H	H	H	L	H	H	L	H	H	H	H	H
L	L	H	L	L	H	H	H	H	H	L	H	H	H
L	L	H	H	L	H	H	H	H	H	L	H	H	H
L	L	H	L	H	H	H	H	H	H	H	L	H	H
L	L	H	H	H	H	H	H	H	H	H	H	L	L

NOTES
H : HIGH voltage level
L : LOW voltage level
X : Don't care

SN74LS373

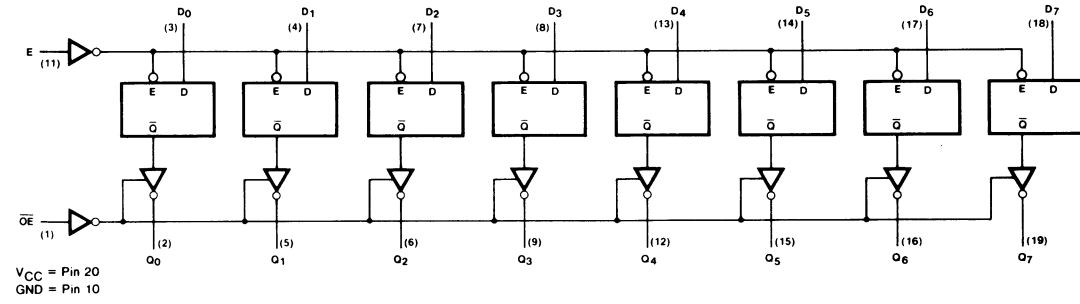
Octal Transparent Latch with 3-State Outputs
Pin Configurations
(Top View)



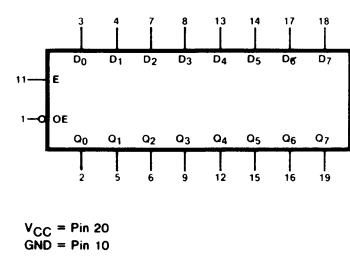
Pin Function

E : Latch Enable (active HIGH) input
D₀-D₇ : Parallel Data inputs
 $\overline{OE}$: Output Enable (active LOW) input
Q₀-Q₇ : 3-State outputs

Block Diagram

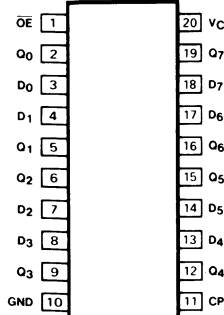


Logic Symbol



SN74LS374

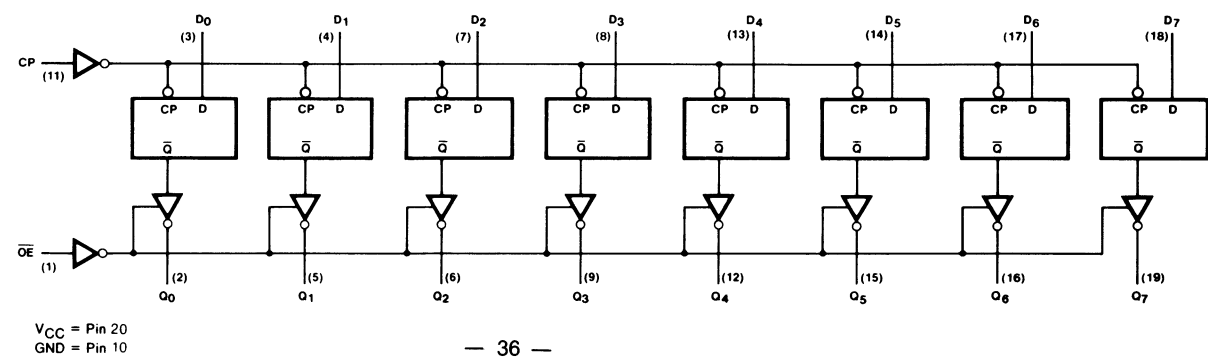
Octal D Type Flip-Flop with 3-State Outputs
Pin Configurations
(Top View)



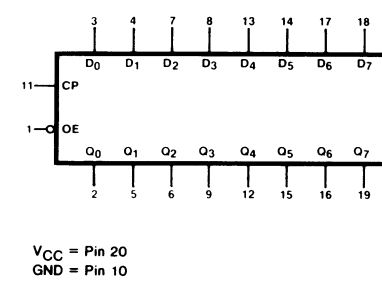
Pin Function

CP : Clock (active HIGH going edge) input
D₀-D₇ : Parallel Data inputs
 $\overline{OE}$: Output Enable (active LOW) input
Q₀-Q₇ : 3-State outputs

Logic Diagram

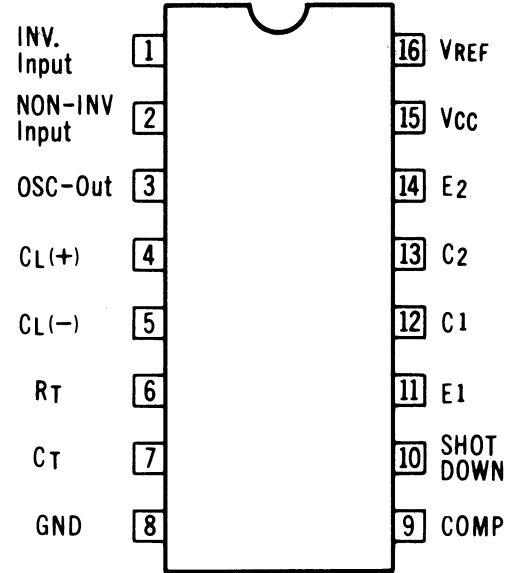


Logic Symbol

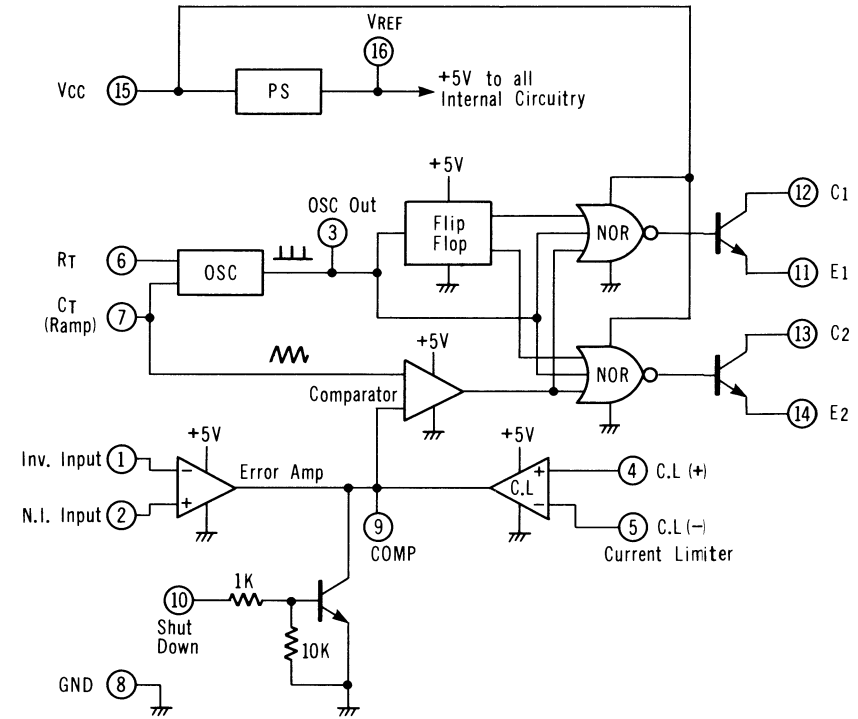


Linner IC
HA17524

Switching Regulator
Pin Configurations

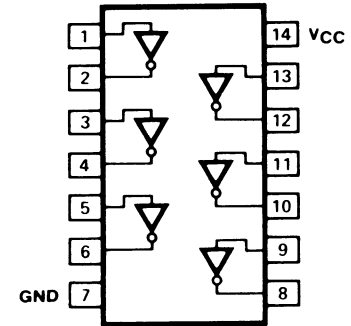


Block Diagram



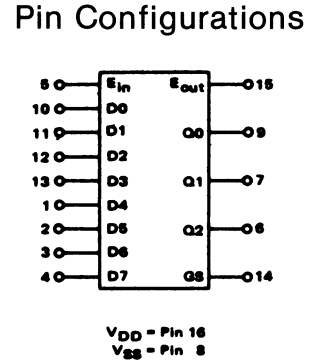
μ PD4069UBC

Hex Inverter
Pin Function
(Top View)



μ PD4532BC

8-bit Priority Encoder
Pin Configurations

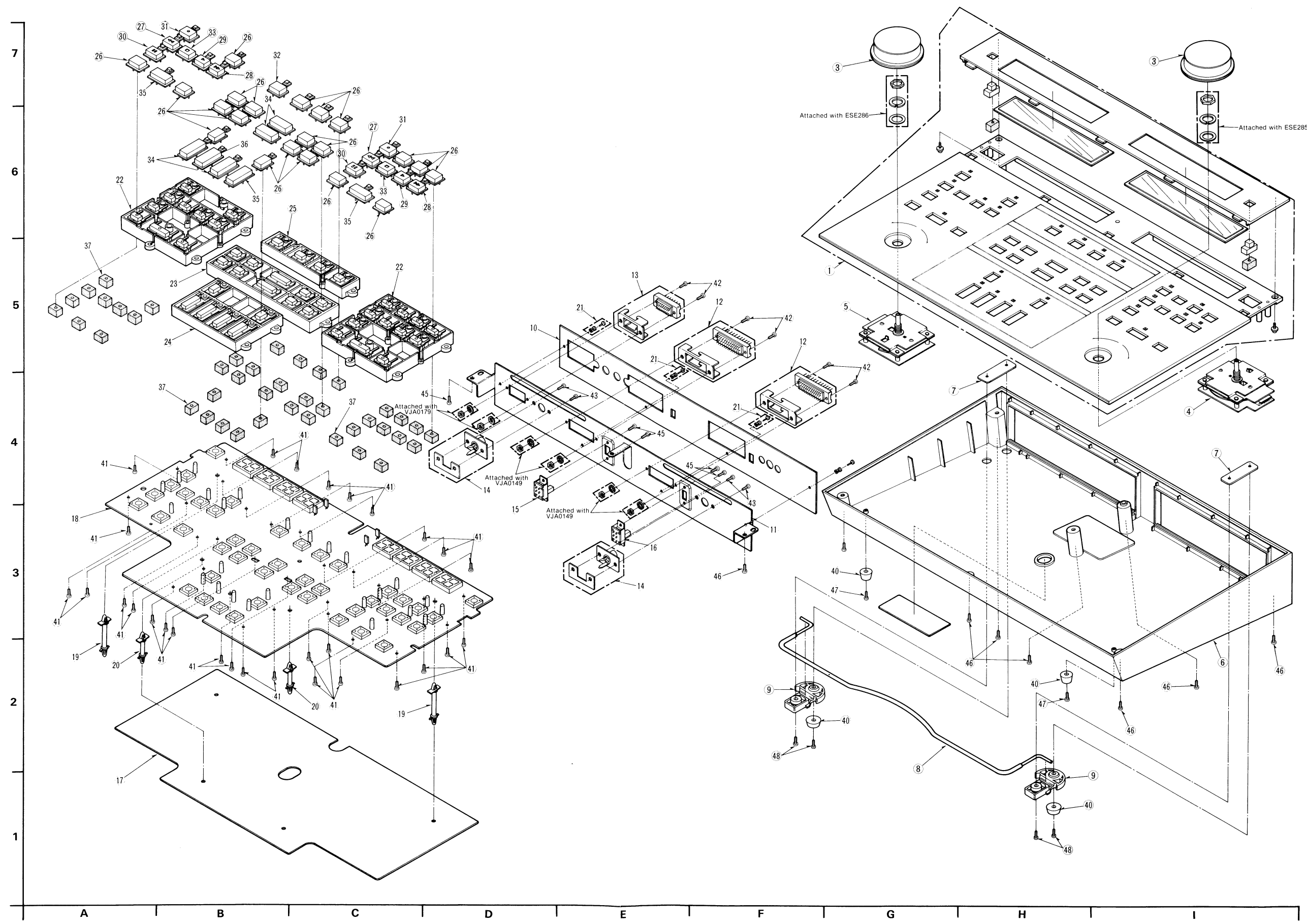


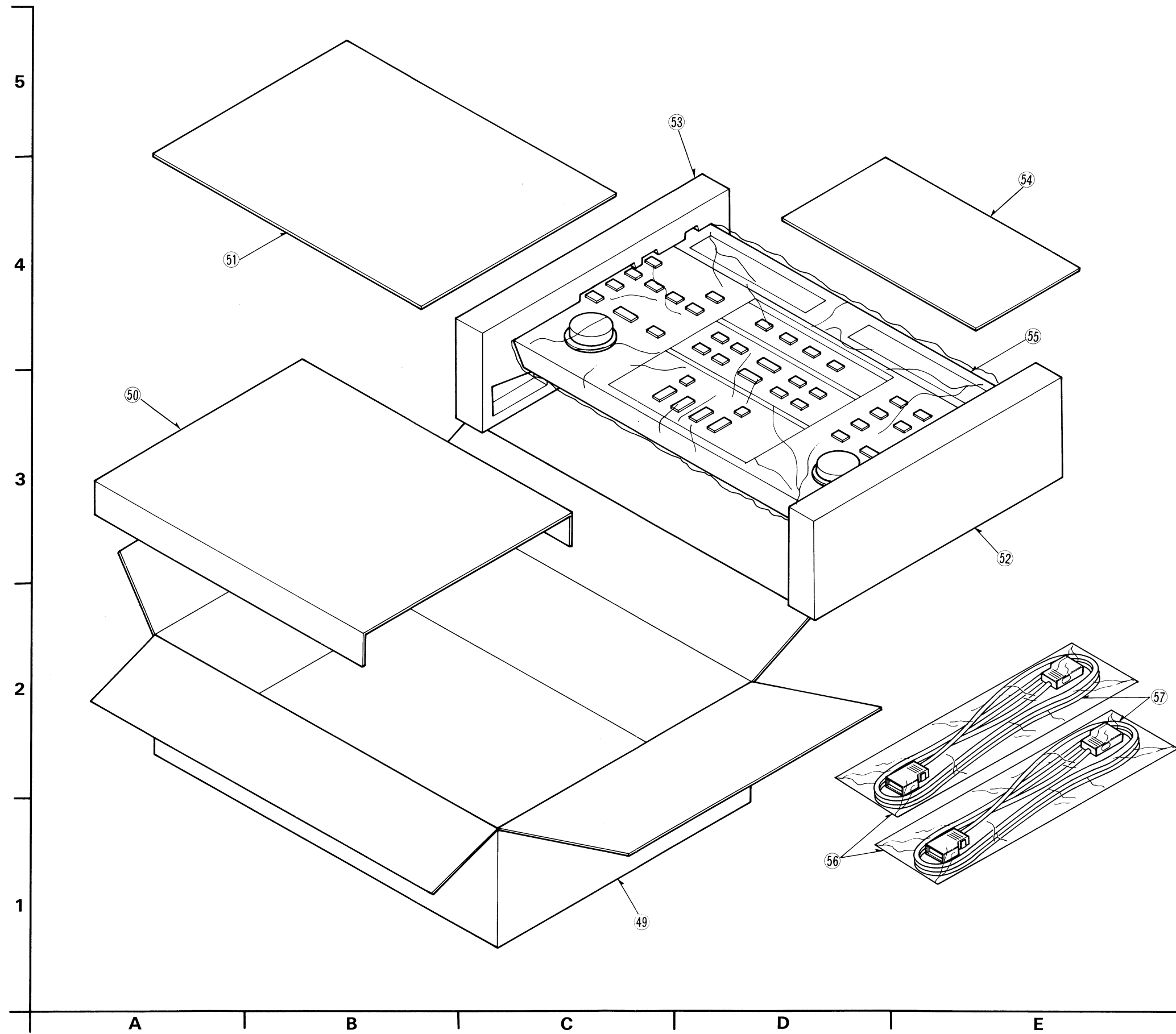
Truth Table

INPUT									OUTPUT				
E _{in}	D ₇	D ₆	D ₅	D ₄	D ₃	D ₂	D ₁	D ₀	GS	Q ₂	Q ₁	Q ₀	E _{out}
0	x	x	x	x	x	x	x	x	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0	0	0	0	1
1	1	x	x	x	x	x	x	x	1	1	1	1	0
1	0	1	x	x	x	x	x	x	1	1	1	0	0
1	0	0	1	x	x	x	x	x	1	1	0	1	0
1	0	0	0	1	x	x	x	x	1	1	0	0	0
1	0	0	0	0	1	x	x	x	1	0	1	1	0
1	0	0	0	0	0	1	x	x	1	0	1	0	0
1	0	0	0	0	0	0	1	x	1	0	0	1	0
1	0	0	0	0	0	0	0	1	1	0	0	0	0

x = Don't Care

EXPLODED VIEWS

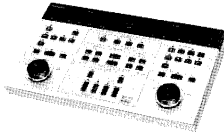




MECHANICAL REPLACEMENT PARTS LIST

Model No. NV-A500-E/EN

Notes:
1. * Be sure to make your orders of replacement parts according to this list.
* " " in Remarks column indicates new parts.



Item No.	Drawing No.	Description	Pcs/ Set	Availa- bility	Part No.	Remark
1	(1)	Top Panel Unit	1		VYP0631	E-Type
					VYP0642	EN-Type
3	(1)	Knob	1		VGTO226	
4	(1)	Rotary Switch	1		ESE285	
5	(1)	Rotary Switch	1		ESE286	
6	(1)	Bottom Case Unit	1		VYK0402	E-Type
					VYK0403	EN-Type
7	(1)	Stand Holder Angle	2		VMA5793	
8	(1)	Stand	1		VMA5792	
9	(1)	Stand Holder	2		VGOQ0292	
10	(1)	Rear Panel	1		VGK1064	
11	(1)	Rear Panel Angle	1		VMA5796	
12	(1)	34 Pin Connector	2		VJP63	
13	(1)	20 Pin Connector	1		VJS1266	
14	(1)	1 Pin Jack	2		VJJ0018	
15	(1)	Switch	1		ESD32168	
16	(1)	Switch	1		ESD32169	
17	(1)	C.P.U P.C.B Ass'y	1		VEP00845A	
18	(1)	Display P.C.B Ass'y	1		VEP00846	
19	(1)	Circuit Support	2		LCBS16NS	
20	(1)	Circuit Support	2		LCBS10NS	
21	(1)	Rivet	4		NRP345	
22	(1)	Button Holder (C)	2		VGU0328	
23	(1)	Button Holder (D)	1		VGU0330	
24	(1)	Button Holder (F)	1		VGU0331	
25	(1)	Button Holder (E)	1		VGU0329	
26	(1)	Online, Search +, -, Audio	20		VGK1052	
		CH1, CH2, Video Trim +, -,				
		Exit Entry Return Go To Button				
27	(1)	REW Button	2		VGK1053	
28	(1)	FF Button	2		VGK1054	
29	(1)	PLAY Button	2		VGK1055	
30	(1)	PAUSE Button	2		VGK1056	
31	(1)	REC Button	2		VGK1057	
32	(1)	ASSY Button	1		VGK1058	
33	(1)	STOP Button	2		VGK1059	
34	(1)	RESET SET PREVIEW REVIEW	4		VGK1060	
		BUTTON				
35	(1)	SEARCH, EDIT STOP Button	3		VGK1061	
36	(1)	EDIT Button	1		VGK1062	
40	(1)	Rubber Foot	4		VKA0024	
41	(1)	Screw	29		XTV3+10G	
42	(1)	Screw	6		XSN26+10	
43	(1)	Screw	4		XSN3+6FZ	
44	(1)	Screw	2		XTW3+6B	
45	(1)	Screw	4		XSN2+4	
46	(1)	Screw	8		XTV3+10JFUR	
47	(1)	Screw	2		XTV3+10GF2	
48	(1)	Screw	4		XSN3+10FZ	
49	(2)	Packing Case	1		VPG1067	E-Type
					VPG1068	EN-Type
50	(2)	Bottom Pad	1		VPN0715	
51	(2)	Top Pad	1		VPN0714	
52	(2)	Cushion (Right)	1		VPN0712	
53	(2)	Cushion (Left)	1		VPN0713	
54	(2)	Fan Bag	1		VQF0788	E-Type
					VQF0789	EN-Type
55	(2)	Polyethylene Bag	1		XZB36X60B05	
56	(2)	Polyethylene Bag	2		XZB32X35B05	
57	(2)	34 Pin Connector	2		VJA0149	

ELECTRICAL REPLACEMENT PARTS LIST

Model No. NV-A500-E/EN

Note:
1. Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified by shade have special characteristics important for safety. When replacing any of these com-
ponents, use only the original ones.
3. Unless otherwise specified:
All resistors are in OHMS (Ω), 1/4w, $\pm 5\%$ carbon, K=1,000 Ω , M=1,000K Ω .
All capacitors are in MICROFARADS (μ F), $\pm 10\%$ except electrolytic $+30\%$, -10% : P= μ F.
All coils are in MICROHENRIES (μ H), m=10 μ .
4. C.B.A: Circuit Board Assembly.
5. C.B: Circuit Board.

Ref. No.	Part No.	Part Name & Description	Pcs / Set	Remarks
		CPU BOARD		
		(VEP00845A)		
		Integrated Circuits		
IC1	μ PD8039LC	8 bit Microprocessor	1	
IC2	SN74LS373N	TTL D-Type Latch	1	
IC3	VSI0043	P-ROM	1	
IC4-7	μ PD8243C	I/O	4	
IC9	SN74LS374N	TTL D-Type FF	1	
IC10	μ PD4020C	Counter	1	
IC11,12	HD74LS138P	TTL 3 to 8 Decoder	2	
IC14-16	μ PD4069UBC	Inverter	3	
IC17	HD74LS138P	TTL 3 to 8 Decoder	1	
IC18	HA17524P	Voltage Regulator	1	
IC21	μ PD8039LC	8 bit Microprocessor	1	
IC22	SN74LS373N	TTL D-Type Latch	1	
IC23	VSI0043	P-ROM	1	
IC24-27	μ PD8243C	I/O	4	
IC28	μ PD4020C	Counter	1	
IC29	SN74LS374N	TTL D-Type FF	1	
IC30,31	HD74LS138P	TTL 3 to 8 Decoder	2	
IC32-34	μ PD4069UBC	Inverter	3	
IC35	HD74LS138P	TTL 3 to 8 Decoder	1	
IC36	HA17524P	Voltage Regulator	1	
		Transistors		
Q1-20	2SD636 (R,S)		20	
Q21-32	2SB641		12	
Q33-46	2SD636 (R,S)		14	
Q47	2SA779		1	
Q48-50	2SD636 (R,S)		3	
Q51	2SA779		1	
Q52-86	2SD636 (R,S)		35	
Q87-98	2SB641		12	
Q99,100	2SD636 (R,S)		2	
		Diodes		
D1	ERA81-004		1	
D2,3	MA165		2	
D4	ERA81-004		1	
D5-24	MA165		20	
		Resistors		
R1	ERD25VJ562	5.6K	1	
R2	EVMK4GA00B23	Variable	1	
R3	ERD25VJ472	4.7K	1	
R4	ERD25VJ152	1.5K	1	
R5	ERD25VJ473	47K	1	
R6	ERD25VJ562	5.6K	1	
R7	ERD25VJ332	3.3K	1	
R8	ERD25VJ562	5.6K	1	
R9	ERD25VJ273	27K	1	
R10	ERD25VJ104	100K	1	
R11-13	ERD25VJ103	10K	3	
R14	ERD25VJ104	100K	1	
R16-18	ERD25VJ472	4.7K	3	
R19	ERD25VJ103	10K	1	
R20	ERD25VJ474	470K	1	
R21	ERD25VJ103	10K	1	
R22	ERD25VJ104	100K	1	

Ref. No.	Part No.	Part Name & Description	Pcs / Set	Remarks	Ref. No.	Part No.	Part Name & Description	Pcs / Set	Remarks
R23	ERD25VJ474	470K	1		C6	ECKFH103ZF	Ceramic 0.01	1	
R24	ERD25VJ104	100K	1		C7	ECQM1H102MZ	Mylar 1000P	1	
R25,26	ERD25VJ103	10K	2		C8	ECQM1H472MZ	Mylar 4700P	1	
R27	ERD25VJ273	27K	1		C9	ECEA1CS101	Electrolytic 16V 100	1	
R28	ERD25VJ104	100K	1		C10	ECKFH103ZF	Ceramic 0.01	1	
R29	ERD25VJ152	1.5K	1		C11	ECEA1CS100	Electrolytic 16V 10	1	
R30	ERD25VJ473	47K	1		C12	ECEA1CS101	Electrolytic 16V 100	1	
R31	ERD25VJ332	3.3K	1		C13-15	ECKFH103ZF	Ceramic 0.01	3	
R32-34	ERD25VJ562	5.6K	1		C16	ECEA1CS470	Electrolytic 16V 47	1	
R35	EVMK4GA00B23	Variable	1		C17	ECKFH103ZF	Ceramic 0.01	1	
R36	ERD25VJ104	100K	1		C18	ECEA1CS470	Electrolytic 16V 47	1	
R37,38	ERD25VJ103	10K	2		C19	ECKFH103ZF	Ceramic 0.01	1	
R39	ERD25VJ104	100K	1		C20	ECEA1CS470	Electrolytic 16V 47	1	
R40-42	ERD25VJ472	4.7K	3		C21	ECKFH103ZF	Ceramic 0.01	1	
R43	ERD25VJ103	10K	1		C22	ECEA1CS470	Electrolytic 16V 47	1	
R44,45	ERD25VJ152	1.5K	2		C23-41	ECKFH103ZF	Ceramic 0.01	19	
R46-49	ERD25VJ472	4.7K	4		C42	ECKFH221KB	Ceramic 220P	1	
					C43	ECKFH103ZF	Ceramic 0.01	1	
					C44,45	ECCFH220J	Ceramic 22P	1	
					C46	ECKFH103ZF	Ceramic 0.01	1	
		Resistor Arrays			C47	ECEA1HS010	Electrolytic 50V	1	
RA1	EXBP810103	10K x 10	1		C48	ECKFH103ZF	Ceramic 0.01	1	
RA2	EXBT45152	1.5K x 5	1		C49	ECEA1HS010	Electrolytic 50V	1	
RA3	EXBP810103	10K x 10	1		C50	ECKFH103ZF	Ceramic 0.01	1	
RA4,5	EXBT45152	1.5K x 5	2		C51,52	ECCFH220J	Ceramic 22P	2	
RA6-8	EXBT44332	3.3K x 4	3		C53	ECEA1CS470	Electrolytic 16V 47	1	
RA9	EXBT45152	1.5K x 5	1		C54-56	ECKFH103ZF	Ceramic 0.01	3	
RA10	EXBT46152	1.5K x 6	1		C57	ECEA1CS101	Electrolytic 16V 100	1	
RA11	EXBP86472	4.7K x 6	1		C58	ECQM1H102MZ	Mylar 1000P	1	
RA12,13	EXBT43103	10K x 3	2		C59	ECKFH103ZF	Ceramic 0.01	1	
RA14,15	EXBT44152	1.5K x 4	2		C60	ECEA1CS101	Electrolytic 16V 100	1	
RA16,17	EXBT44103	10K x 4	2		C61	ECQM1H472MZ	Mylar 4700P	1	
RA18	EXBP88472	4.7K x 8	1		C62	ECEA1CS100	Electrolytic 16V 10	1	
RA19	EXBT45103	10K x 5	1		C63	ECKFH103ZF	Ceramic 0.01	1	
RA20	EXBP84472	4.7K x 8	1		C64	ECEA1CS471	Electrolytic 16V 470	1	
RA21	EXBP89103	10K x 9	1		C65	ECEA1CS101	Electrolytic 16V 100	1	
RA22	EXBP84103	10K x 4	1		C66	ECKFH103ZF	Ceramic 0.01	1	
RA23	EXBP85103	10K x 5	1		C67	ECKFH221KB	Ceramic 220P	1	
RA24	EXBP88103	10K x 8	1		C70	ECKFH103ZF	Ceramic 0.01	1	
RA25,26	EXBT44103	10K x 4	2		C71	ECEA1CS470	Electrolytic 16V 47	1	
RA27	EXBP88104	100K x 8	1		C72	ECKFH103ZF	Ceramic 0.01	1	
RA28,29	EXBT44103	10K x 4	2		C73	ECEA1CS470	Electrolytic 16V 47	1	
RA30	EXBP88104	100K x 8	1		C74	ECKFH103ZF	Ceramic 0.01	1	
RA31	EXBP84103	10K x 4	1		C75	ECEA1CS470	Electrolytic 16V 47	1	
RA32	EXBP85103	10K x 5	1		C76	ECKFH103ZF	Ceramic 0.01	1	
RA33	EXBP88103	10K x 8	1		C78-102	ECKFH103ZF	Ceramic 0.01	25	
RA34	EXBP89103	10K x 9	1		C104-109	ECKFH103ZF	Ceramic 0.01	6	
RA35	EXBT45103	10K x 5	1						
RA36	EXBP84472	4.7K x 4	1						
RA37,38	EXBT44152	1.5K x 4	2						
RA39,40	EXBT43103	10K x 3	2				Coils		
RA41	EXBP86472	4.7K x 6	1		L1	VLQ0090	30 μ H	1	
RA42,43	EXBT44103	10K x 4	2		L2	VLQ0091	100 μ H	1	
RA44	EXBP88472	4.7K x 8	1		L3,4	VLQ0090	30 μ H	2	
RA45	EXBT46152	1.5K x 6	1		L5	VLQ0091	100 μ H	1	
RA46,47	EXBT45152	1.5K x 5	1		L6	VLQ0090	30 μ H	1	
RA48	EXBP810103	10K x 10	1						
RA49,50	EXBT45152	1.5K x 5	2						
RA51	EXBP810103	10K x 10	1						
RA52-54	EXBT44332	3.3K x 4	3				Connectors		
RA55,56	EXBP812472	4.7K x 12	2		P6009,6010	VJS1147		2	
					P6011,6012	VJS1145		2	
					P6013	VJS1146		1	
					P6014,6015	VJS1145		2	
		Capacitors			P6016	VJS1146		1	
C1	ECEA1CS470	Electrolytic 16V 47	1		P6017	VJP1145		1	
C2	ECKFH103ZF	Ceramic 0.01	1		P6018	VJP1147		1	
C3	ECEA1CS101	Electrolytic 16V 100	1		P6019	VJP1146		1	
C4	ECKFH103ZF	Ceramic 0.01	1		P6020	VJP1145		1	
C5	ECEA1HS010	Electrolytic 50V	1		P6021	VJP1142		1	

REMOTE CONTROLLER NV-A505

FEATURES

■ Remote controller for editing system with search function

This handy unit allows recording, playback, fast forward, rewind, stop and pause as well as assembly-editing and insert-editing operations to be performed by remote control. A convenient dial is used for searching the edit point while the pictures are being monitored on the monitor. This dial can be used to set the tape speed between 0 (still picture) to about 5 times the normal playback speed in either the forward or reverse direction.

- Up to three source units can be connected when this unit is combined with the Multi-Source Switcher NV-J500 (option). This means that there is no need to switch over the tapes to be edited all the time and that all the source units can be started simultaneously for greater editing convenience.

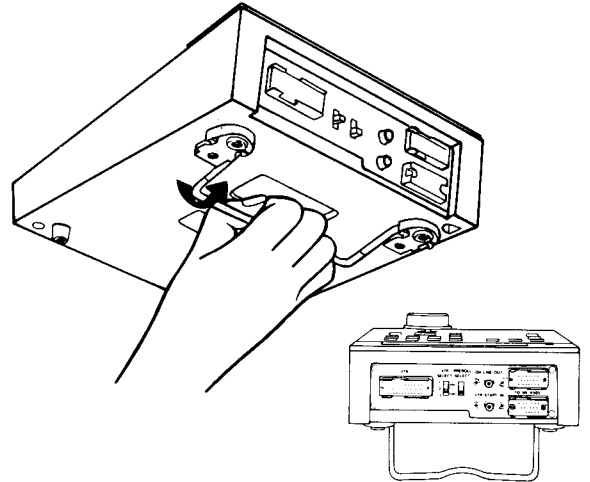
●Two or three source units can be connected when the Multi-Source Switcher NV-J500 is used but when connection is made to the Additional Source connector of the NV-A505 Remote Search Controller, the cable connector polarities must be checked. Connection is made by aligning the "△" marks and pushing the button on the connector itself.

WARNING:

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

BEFORE OPERATION

- The unit can be operated more easily when the bottom support handle is pulled out.



*Handle this support "carefully".

- Set the rear panel VTR Selector Switch properly when connecting a video recorder to this unit. A recorder whose model number is not given as a switch position cannot be connected.

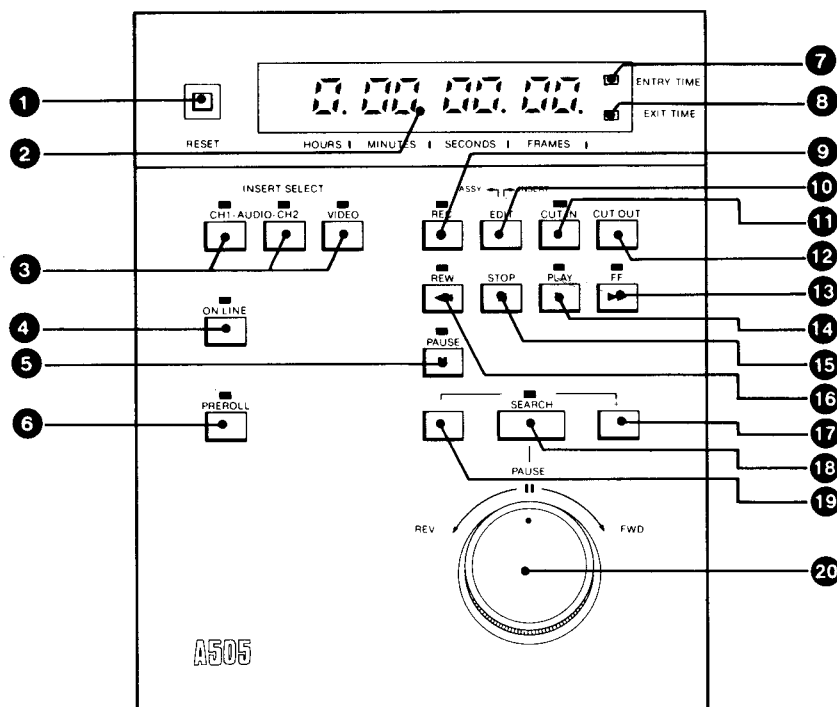
VTR SELECT	
1	NV-8500
2	NV-9600 NV-9240
3	NV-8200 NV-8170

(The VTR Selector Switch label is on the bottom panel.)

- When the VTR Selector Switch has been set to "2", set the corresponding VTR Selector Switch on the connected video cassette recorder to "A70/A960".

CONTROLS AND THEIR FUNCTIONS

Front Panel



1 Reset Button [RESET]

Pressing this button resets the Counter Display to "0" and also clears the edit entry and exit points.

2 Counter

This displays the position of the tape from the time the Reset Button was pressed.

3 Insert Buttons/Lamps [CH1-AUDIO-CH2/VIDEO]

CH1 Button: Used for insert-editing CH1 sound.

CH2 Button: Used for insert-editing CH2 sound.

Video Button: Used for insert-editing video signals.

4 ON Line Button/Lamp [ON LINE]

Press the ON Line Button when using the unit as part of an editing system. This causes the lamp to light.

5 Pause Button/Lamp [PAUSE]

6 Preroll Button/Lamp [PREROLL]

When this button is pressed, the video cassette recorder rewinds the tape for 3 or 5 seconds (determined by the position of the Preroll Selector Switch ④) from the position at which the button was pressed, and it is then set to the PAUSE mode.

7 Entry Time Lamp [ENTRY TIME]

This lamp lights when the edit start point on the source unit is entered in case where the unit is being used as part of an editing system.

8 Exit Time Lamp [EXIT TIME]

This lamp lights when the edit end point on the source unit is entered in case where the unit is being used as part of an editing system.

9 Record Button/Lamp [REC]

When this button is pressed together with the Play Button, audio and video recording starts.

10 Edit Button [EDIT]

This button is used to make assembly edits (pressed together with the Record Button) or to make insert edits (pressed together with the Cut In Button).

11 Cut In Button/Lamp [CUT IN]

This button is used when monitoring signals which are to be recorded or when starting insert editing.

12 Cut Out Button [CUT OUT]

This is used when completing the assembly-or insert editing.

13 Fast Forward Button/Lamp [FF]

14 Play Button/Lamp [PLAY]

15 Stop Button [STOP]

16 Rewind Button [REW]

17 Plus Button [+]*

The tape is advanced one frame at a time when this button is depressed in the pause mode.

This operation is not available for model NV-9600, NV-9240, NV-8200 and NV-8170.

18 Search Button/Lamp [SEARCH]

19 Minus Button [-]*

The tape is returned one frame at a time when this button is depressed in the pause mode.

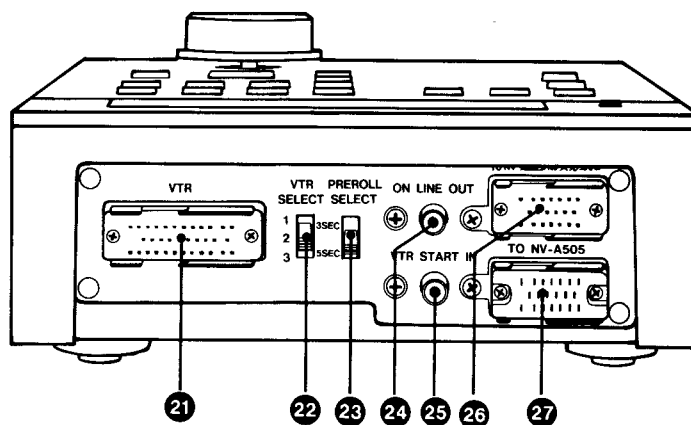
This operation is not available for model NV-9600 and NV-9240.

20 Search Dial*

Rotating this dial permits setting the tape speed between 0 (still picture) to about 5 times the normal playback speed in either the forward (FWD) or reverse (REV) direction.

*Turn to "Using the Search Dial" on page 5 when connecting this unit to video cassette recorder.

Rear Panel



21 Remote Control Connector [VTR]

Connect this to the Remote Control Connector on the video cassette recorder using a 34-pin remote control connection cable.

22 VTR Selector Switch [VTR SELECT]

Set this switch to the position corresponding to the type of video cassette recorder connected. Read the points in label on the bottom panel first.

23 Preroll Selector Switch [PREROLL SELECT]

This switch selects the time duration of short rewind from the position at which the Preroll Button ④ was depressed. It can be set to 3 or 5 seconds.

24 ON Line Output Jack [ON LINE OUT]

Connect this to the ON Line Input Jack on the NV-J500 Multi-Source Switcher when composing an editing system.

25 VTR Start Input Jack [VTR START IN]

Connect this to the external signal generator. It is used when starting the video cassette recorder before 3 or 5 seconds (determined by the position of the Preroll Selector Switch 23) at the position where the Preroll Button ④ was pressed.

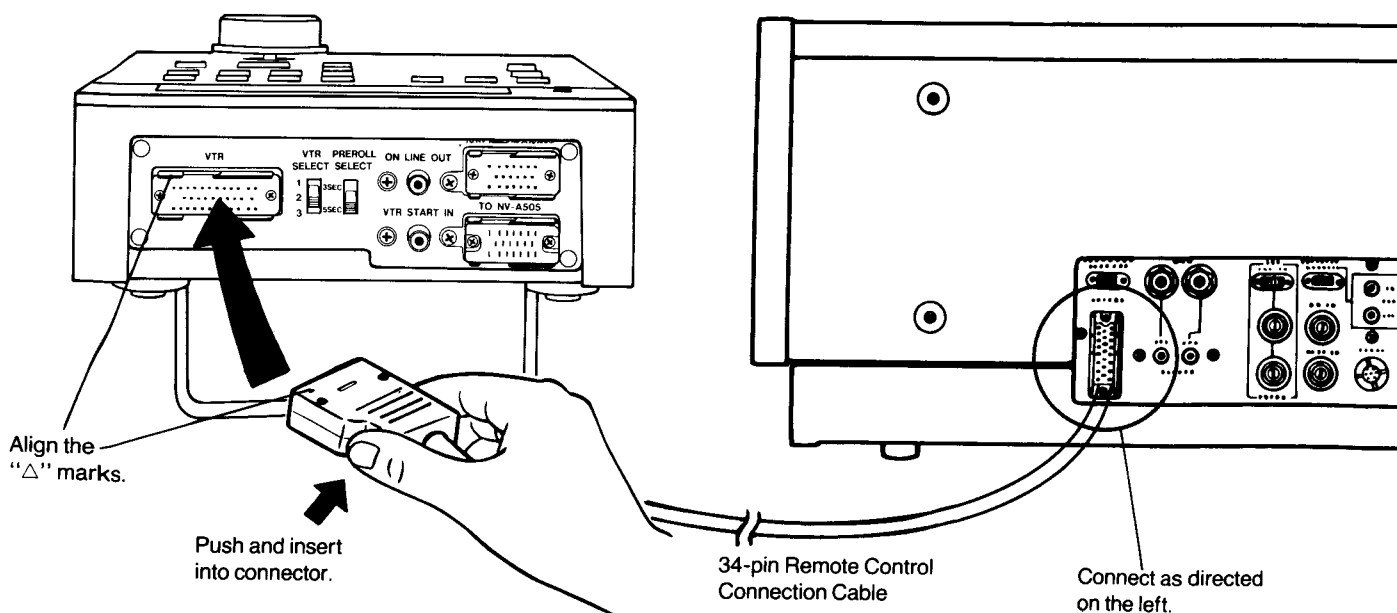
26 Additional Source 1 Connector [TO NV-A500/NV-A505]

Connect this to the Additional Source Connector on the Editing Controller NV-A500 or "TO NV-A505" on another Remote Search Controller NV-A505 when composing an editing system.

27 Additional Source 2 Connector [TO NV-A505]

Connect this to the "TO NV-A500/NV-A505" on another Remote Search Controller NV-A505 when composing an editing system.

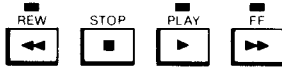
REMOTE CONTROL CONNECTION



REMOTE CONTROL OPERATION

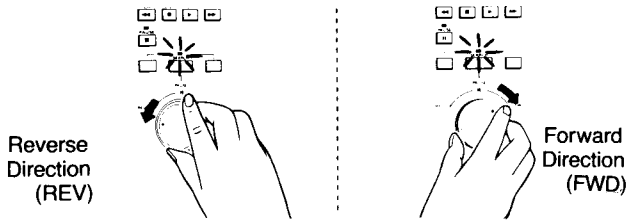
Playback, Fast Forward, Rewind, Stop Operations

Press the required control button. Only the Stop Button is operational during recording (including editing).



Search Operation

Vary the tape speed using the Search Dial. The dial is not operational during recording (including editing).



Pause Operation

The pause mode is released after about 10 minutes in order to protect the tape. In this case, the video cassette recorder is set to the slow-motion playback mode.

When the Pause Button is pressed:

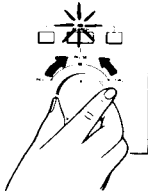
The tape is temporarily stopped during recording (including assembly editing), playback and search operations. During playback, a still frame picture appears on the TV monitor.



●Press the Pause Button again to release the pause mode.

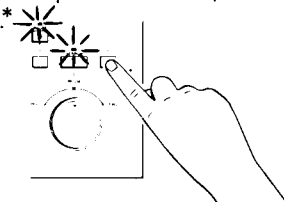
When the Search Dial is operated:

The Search Dial is set to PAUSE in between search operations.



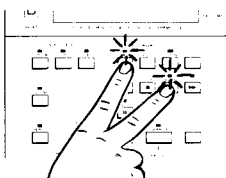
Frame-By-Frame Operations

Frame-by-frame advance is possible in the pause mode when using the VHS recorder.*



Recording Operation

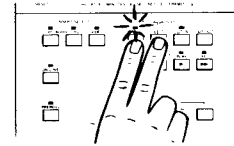
Press the Record Button and Play Button together.



Editing Operation

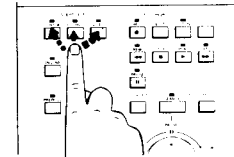
Assembly Editing

Press the Record Button and Edit Button together.



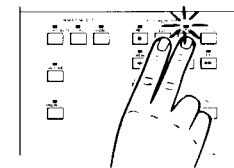
Insert Editing

First select the insert mode.



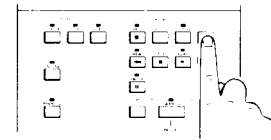
Modes may be combined.

Press the Edit Button and Cut In Button together.



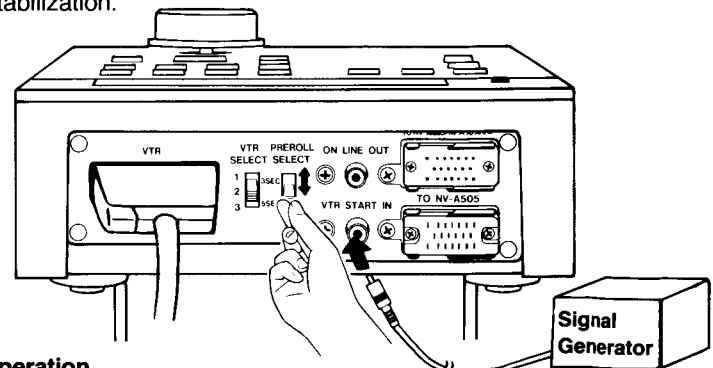
Completion of the Editing

Press the Cut Out Button to complete the assembly or Insert Editing.



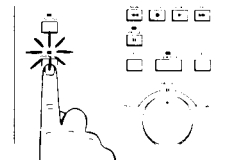
VTR Start Input Connector

The video recorder is started 3 or 5 seconds before editing, and the following connections are made for editing after sync stabilization.



Operation

- 1 Select the time using the Preroll Selector Switch.
- 2 Press the Preroll Button. The tape is now automatically returned for 3 or 5 seconds from the position at which the Preroll Button was pressed and the pause mode is established.



The video recorder is automatically started by the signal from the signal generator.

●Using the Search Dial

The playback speeds are shown in the table below by video cassette recorder model connected.

Model		Reverse Direction ←		→ Forward Direction	
		Frame	Still Picture	Frame	
NV-9600 NV-9240	1/20~5 times normal playback speed	×	○	×	1/20~5 times normal playback speed
NV-8200 NV-8170	Rewind (no playback)	*	○	○	1/5~2 times normal playback speed

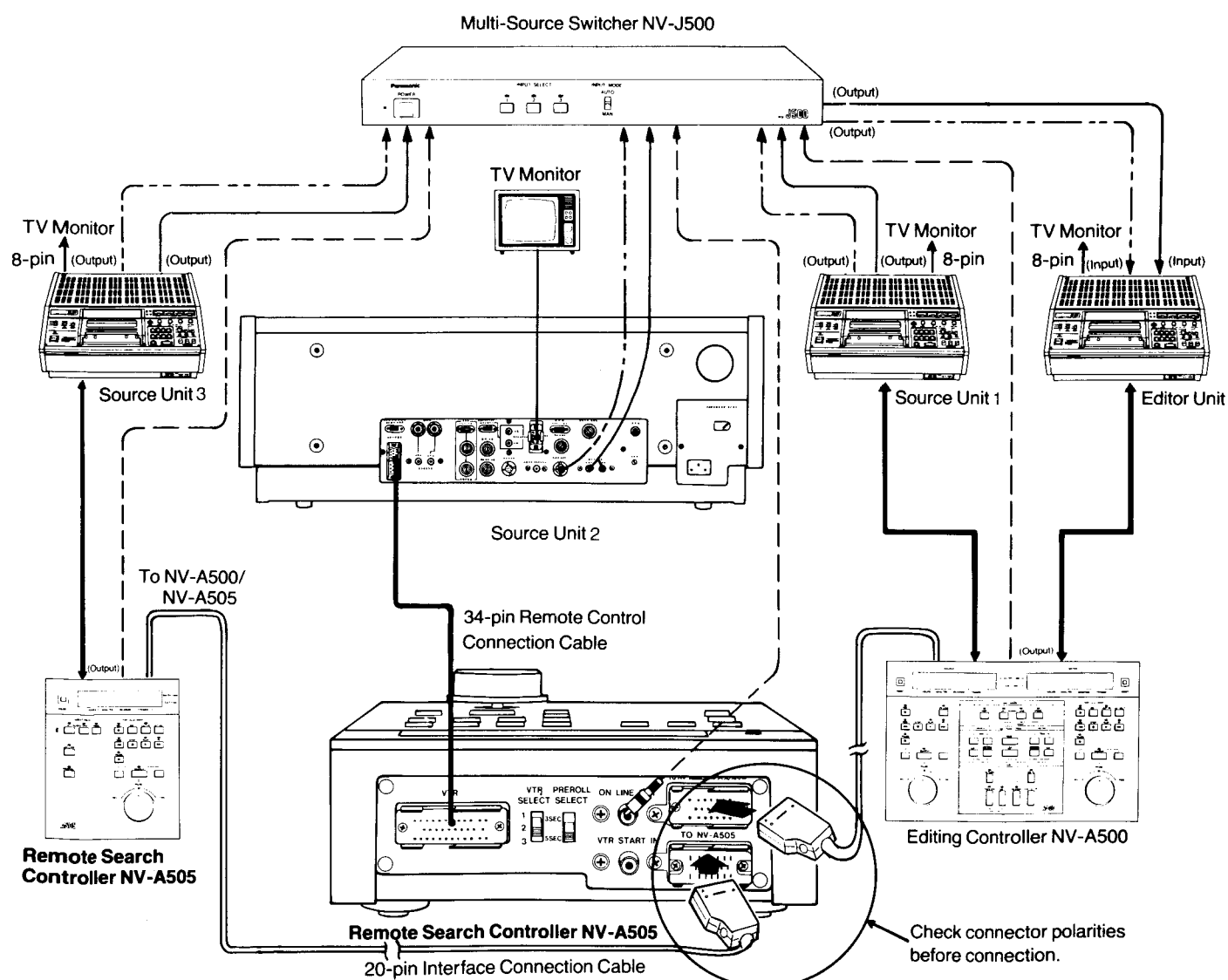
○=Possible ×=Not possible *=Forward frame advance

●When an NV-8200 or NV-8170 has been connected to the unit:
Set the playback speed control to SLOW. If set to FAST, slow-motion playback will not be possible.

●When an NV-9240 or NV-8200 has been connected to the unit:
No editing operations are possible.

●When an NV-8170 has been connected to the unit:
No recording or editing operations are possible.

EDITING SYSTEM CONNECTION



When connecting 3 source units

- Video/Dub Connection
- ON Line (RCA pin Jack) Connection
- Audio Connection
- 34-pin Remote Control Connection
- 20-pin Interface Connection

EDITING SYSTEM

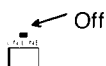
When editing with 1 source unit and 1 editor unit

When the Input Mode Switch on the Multi-Source Switcher NV-J500 has been set to MAN:

Press the Input Selector Buttons on the Multi-Source Switcher NV-J500 to select the source unit which is to be used for editing.

When the Input Mode Switch on the Multi-Source Switcher NV-J500 has been set to AUTO:

Press the ON Line Buttons on the Editing Controller NV-A500 or Remote Search Controller NV-A505 to extinguish the ON Line Lamps and then press the ON Line Button on the controller connected to the source unit being used again to cause the lamp to light.



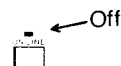
After going off, the lamp for only the source unit being used lights.



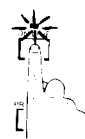
Search for the edit point on the selected source unit using the Remote Search Controller NV-A505 or Editing Controller NV-A500. The actual editing is performed using the Editing Controller NV-A500. For details, refer to the Operating Instructions of the Editing Controller NV-A500.

When editing with the simultaneous start of 2 or 3 source units

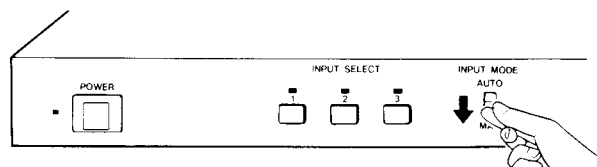
Press the ON Line Buttons on the Editing Controller NV-A500 or Remote Search Controller NV-A505 to extinguish the all ON Line Lamps.



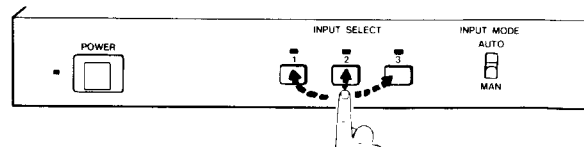
Then press the ON Line Buttons on the controllers connected to the source unit being used again to cause the lamps to light.



Set the Input Mode Switch on the Multi-Source Switcher NV-J500 to "MAN".



Press the Input Selector Buttons on the Multi-Source Switcher NV-J500 to select the source unit to be edited first.



Search the edit point on the source units which have been started simultaneously using the Remote Search Controller NV-A505 or Editing Controller NV-A500.

Perform the editing using the Editing Controller NV-A500. For details, refer to its Operating Instructions.

*Select the source unit using the Input Selector Buttons on the Multi-Source Switcher NV-J500.

DISASSEMBLY METHOD

1. Loosen the 4 screws and remove the bottom case.

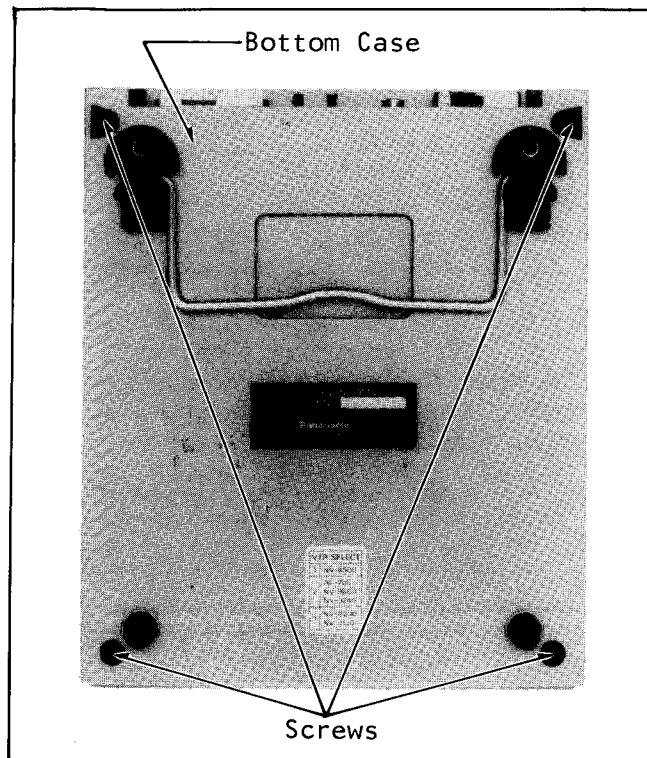


Fig. 1

2. Remove the CPU board from the p.c. board Support.

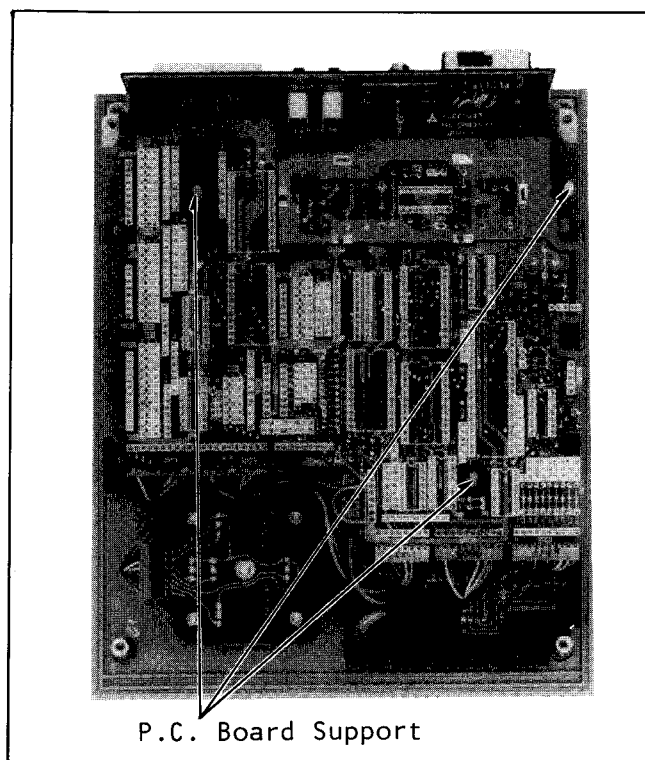


Fig. 2

3. Open the CPU board.

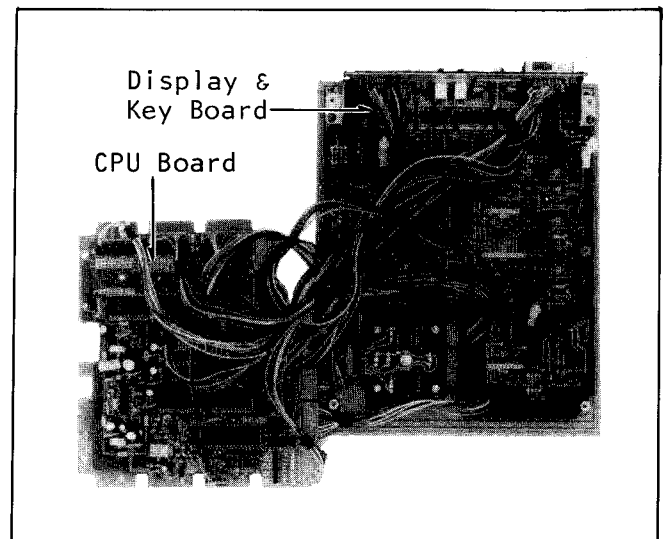
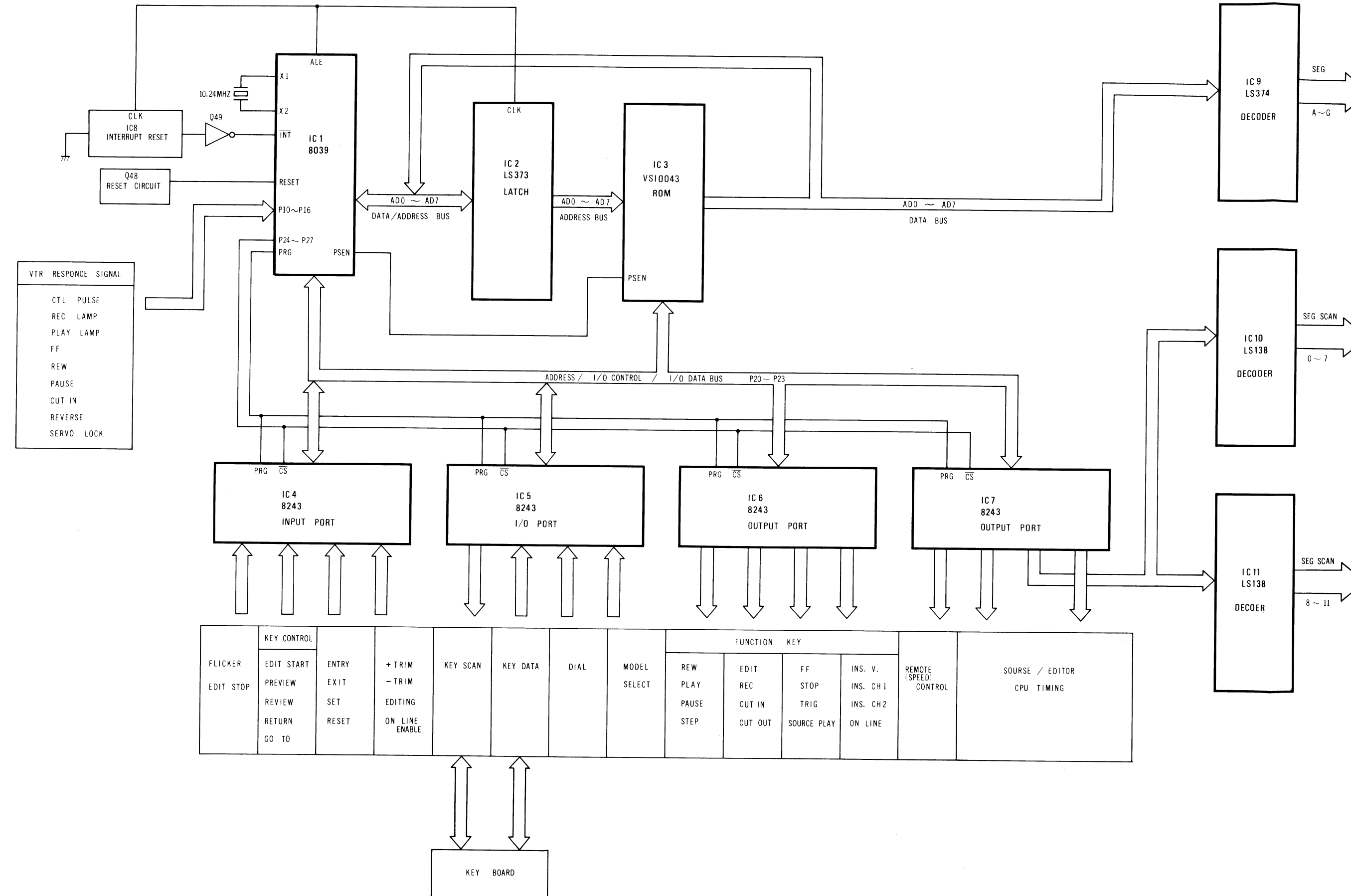
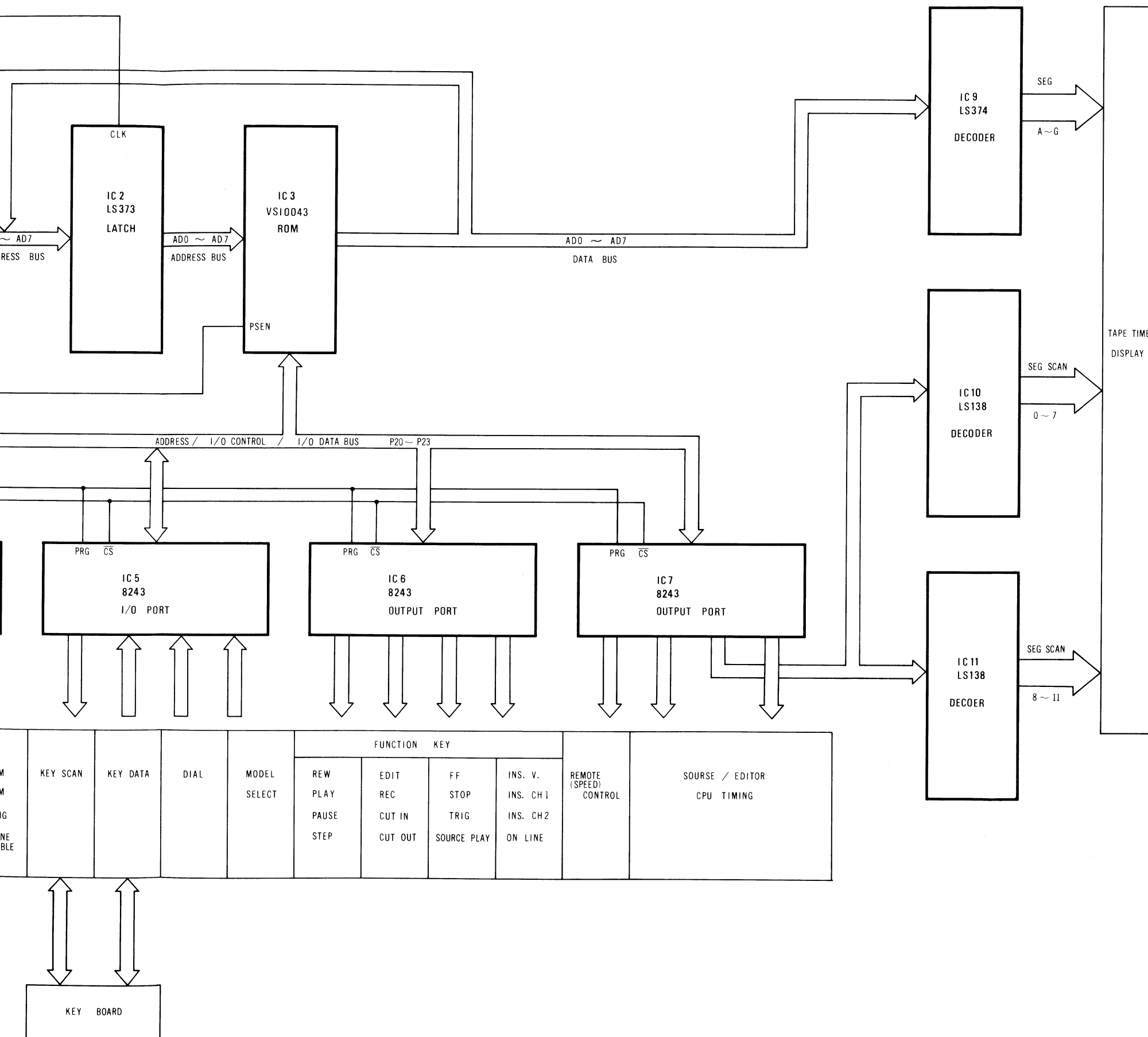


Fig. 3

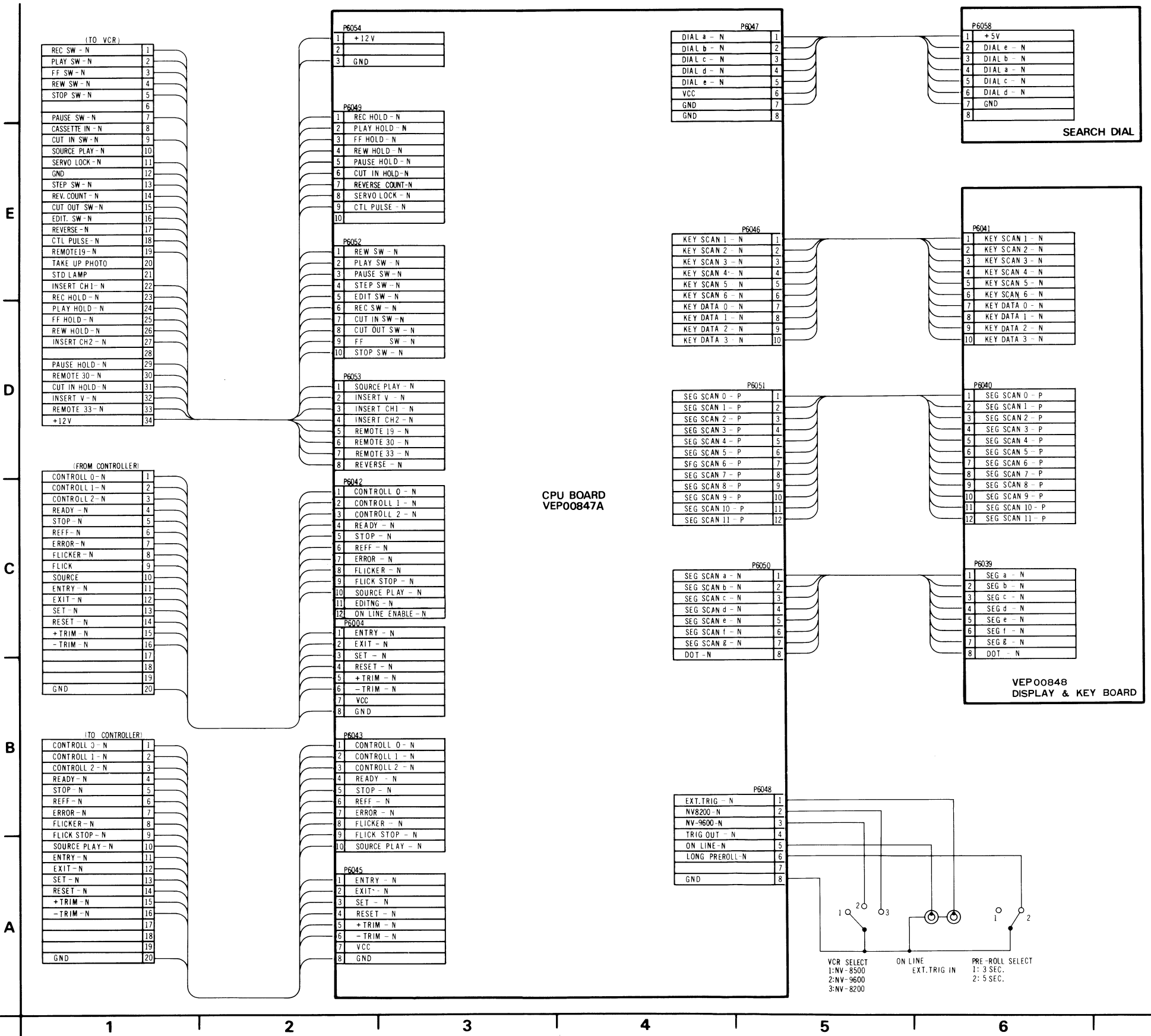
OVERALL BLOCK DIAGRAM



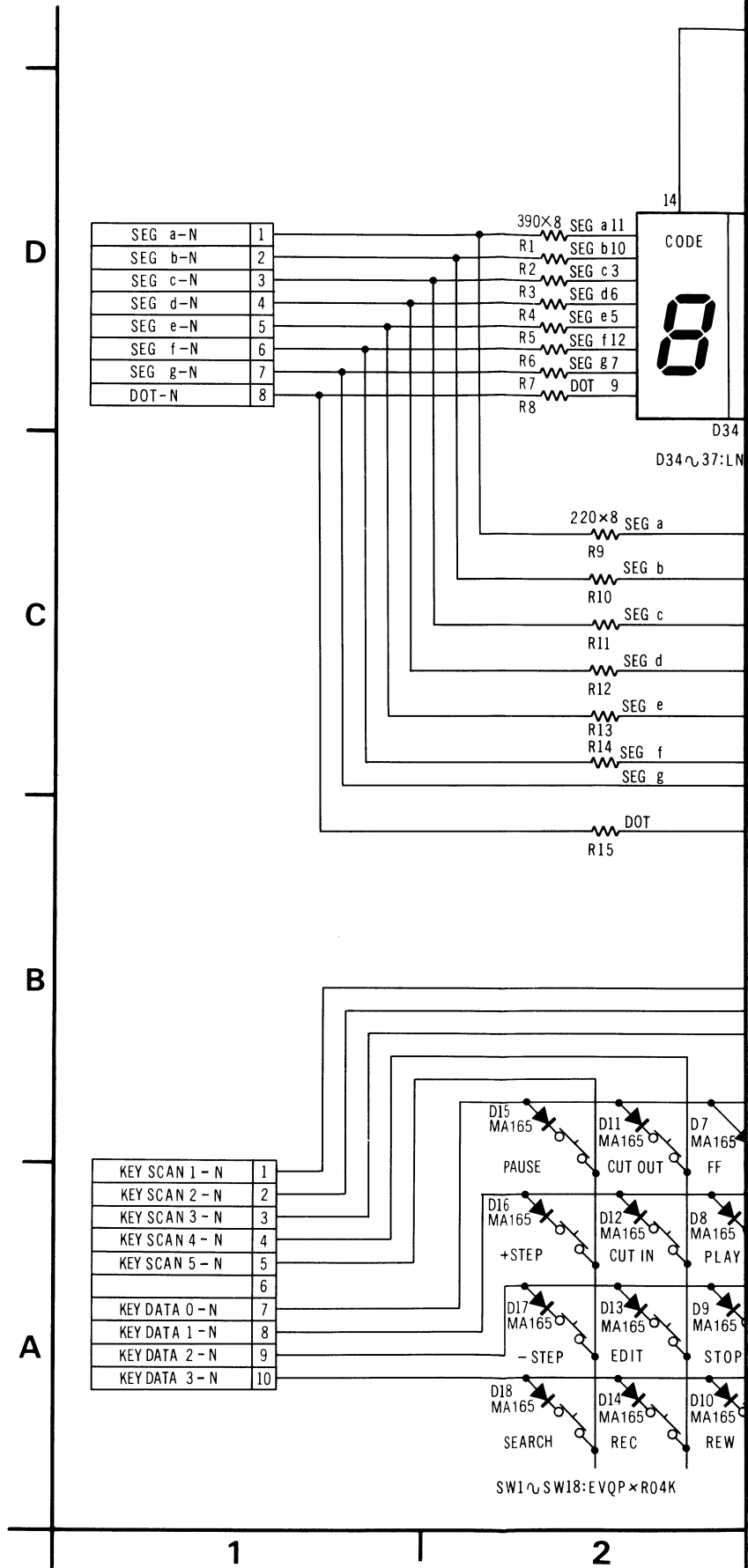


CTL PULSE	: CONTROL PULSE
REC LAMP	: RECORD LAMP
INT	: INTERRUPT
PRG	: PROGRAM
$\overline{CS}$	: CHIP SELECT
I/O PORT	: INPUT/OUTPUT PORT
REFE	: REFERENCE
SEG	: SEGMENT
PSEN	: PROGRAM STORE ENABLE
CPU	: CENTRAL PROCESSING UNIT
ROM	: READ ONLY MEMORY
ALE	: ADDRESS LATCH ENABLE
INS	: INSERT

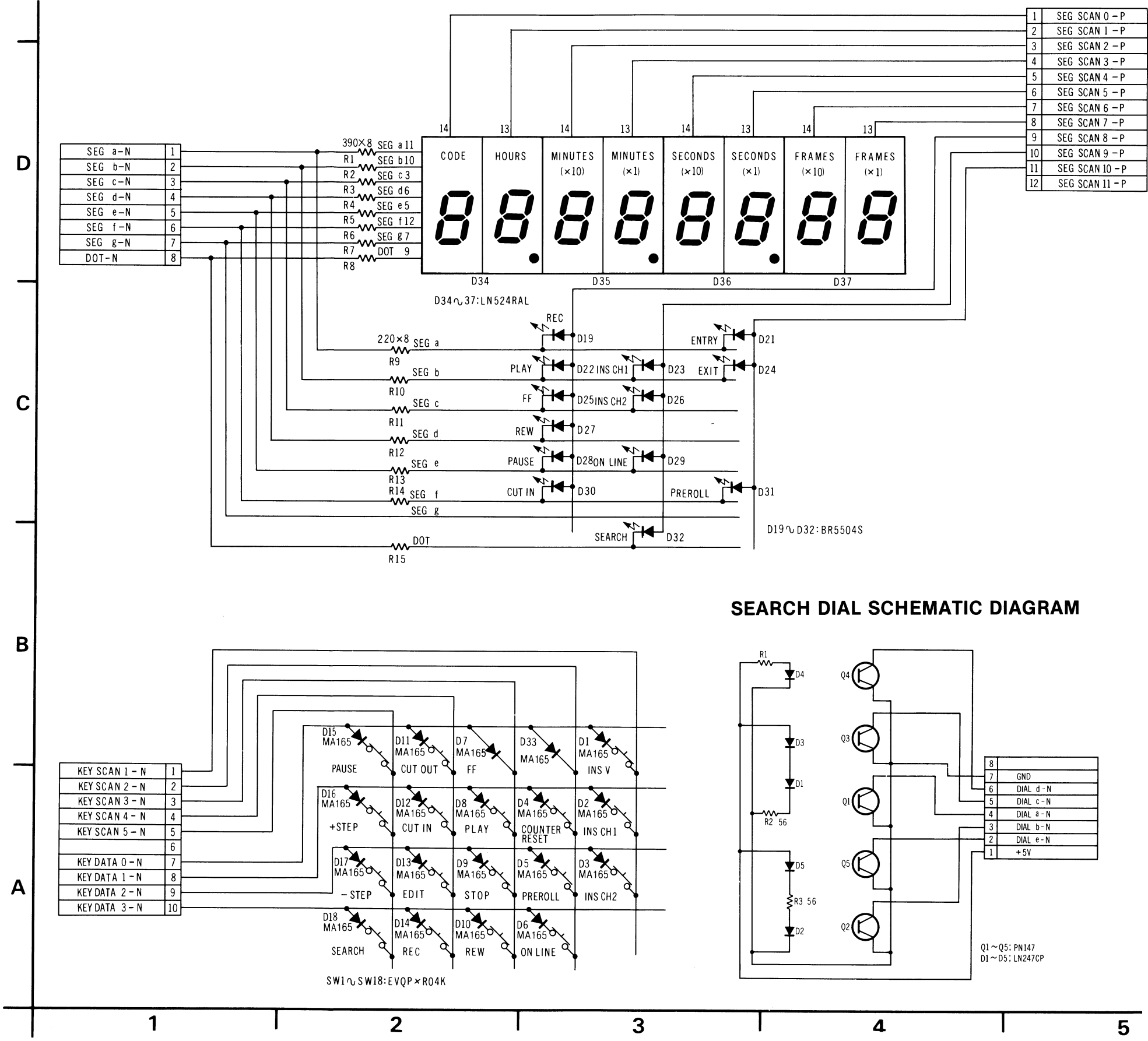
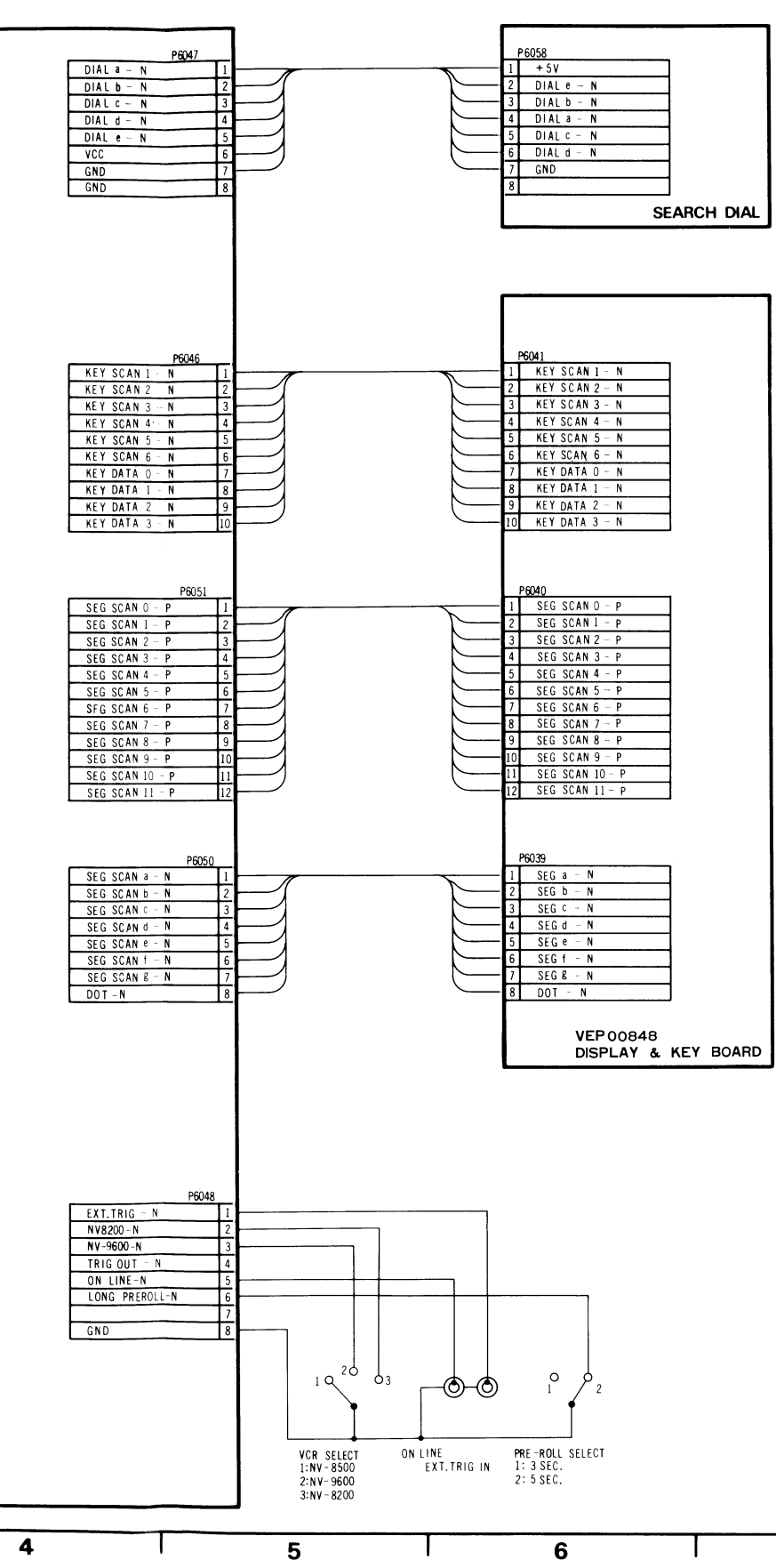
INTERCONNECTION SCHEMATIC DIAGRAM



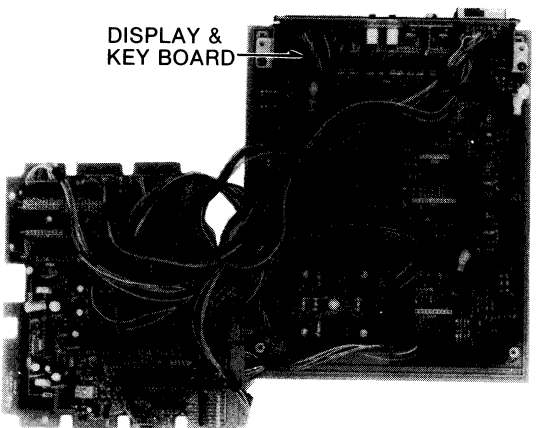
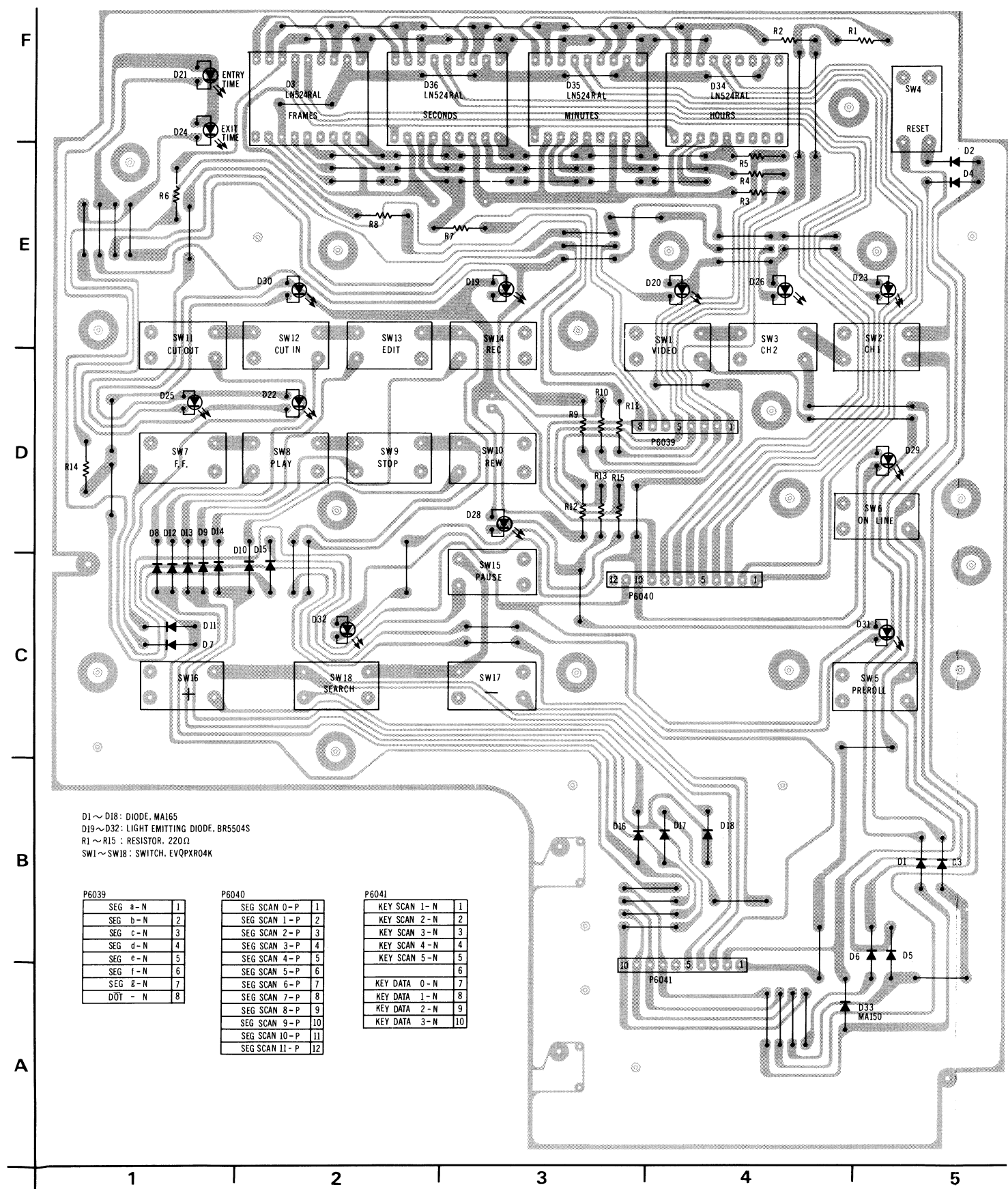
DISPLAY & KEY BOARD SCHEMATIC



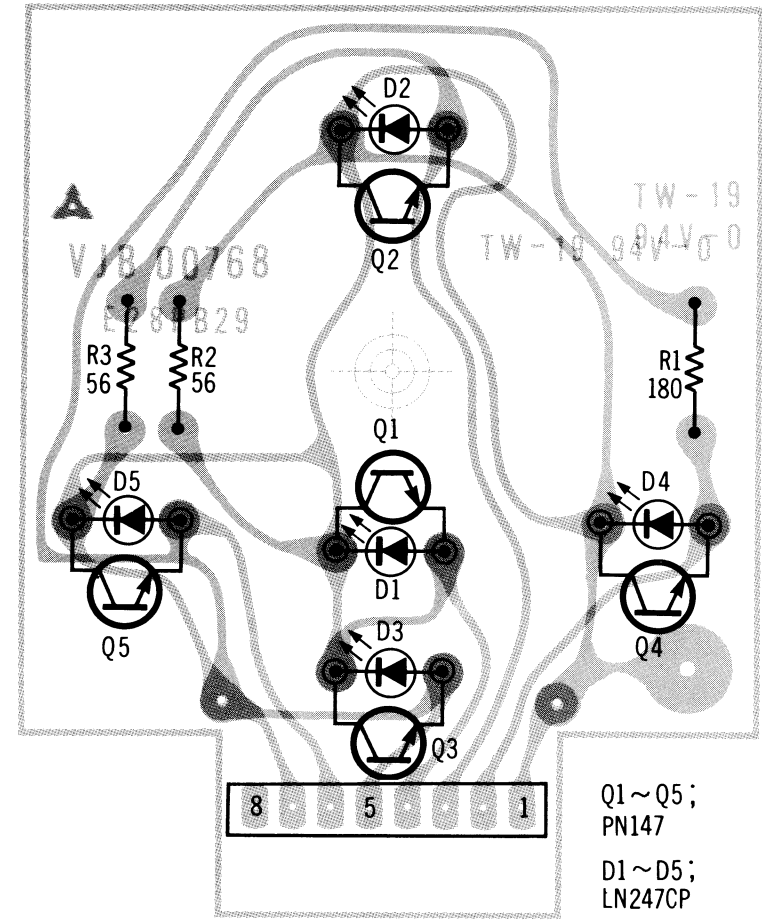
DISPLAY & KEY BOARD SCHEMATIC DIAGRAM



DISPLAY & KEY BOARD C.B.A. (VEP00848)



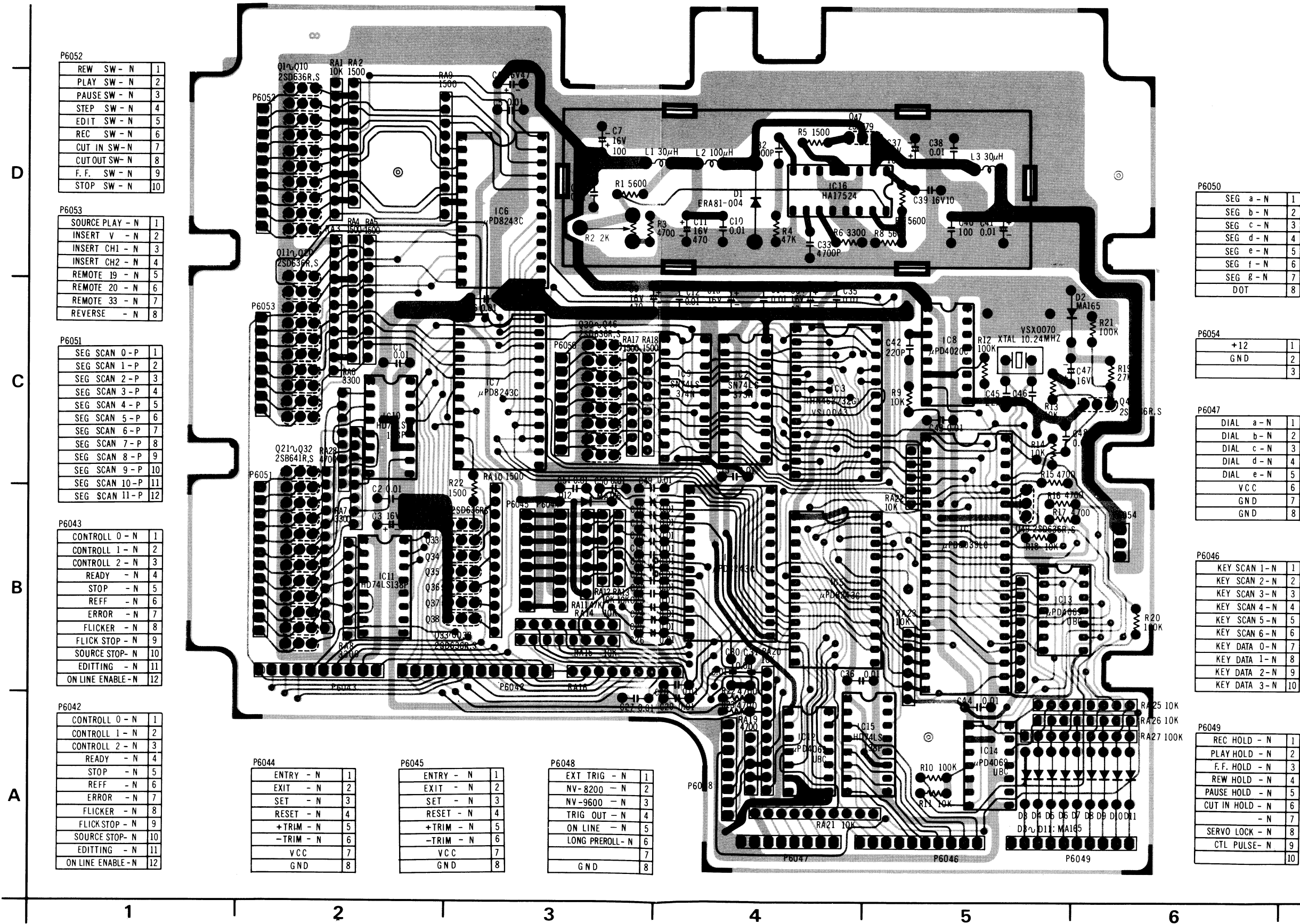
SEARCH DIAL C.B. (VJB00768)

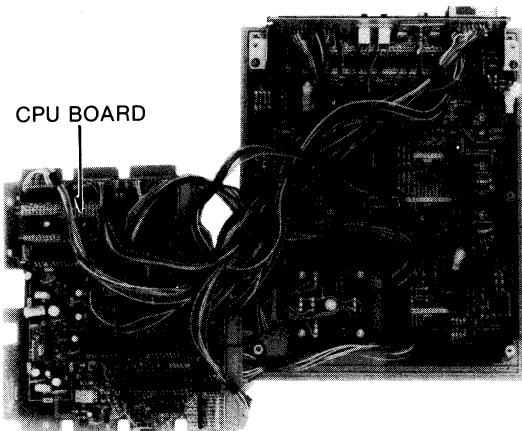


1	+5V
2	DIAL e - N
3	DIAL b - N
4	DIAL a - N
5	DIAL c - N
6	DIAL d - N
7	GND
8	

Q1~Q5;
PN147
D1~D5;
LN247CP

CPU C.B.A. (VEP00847A)

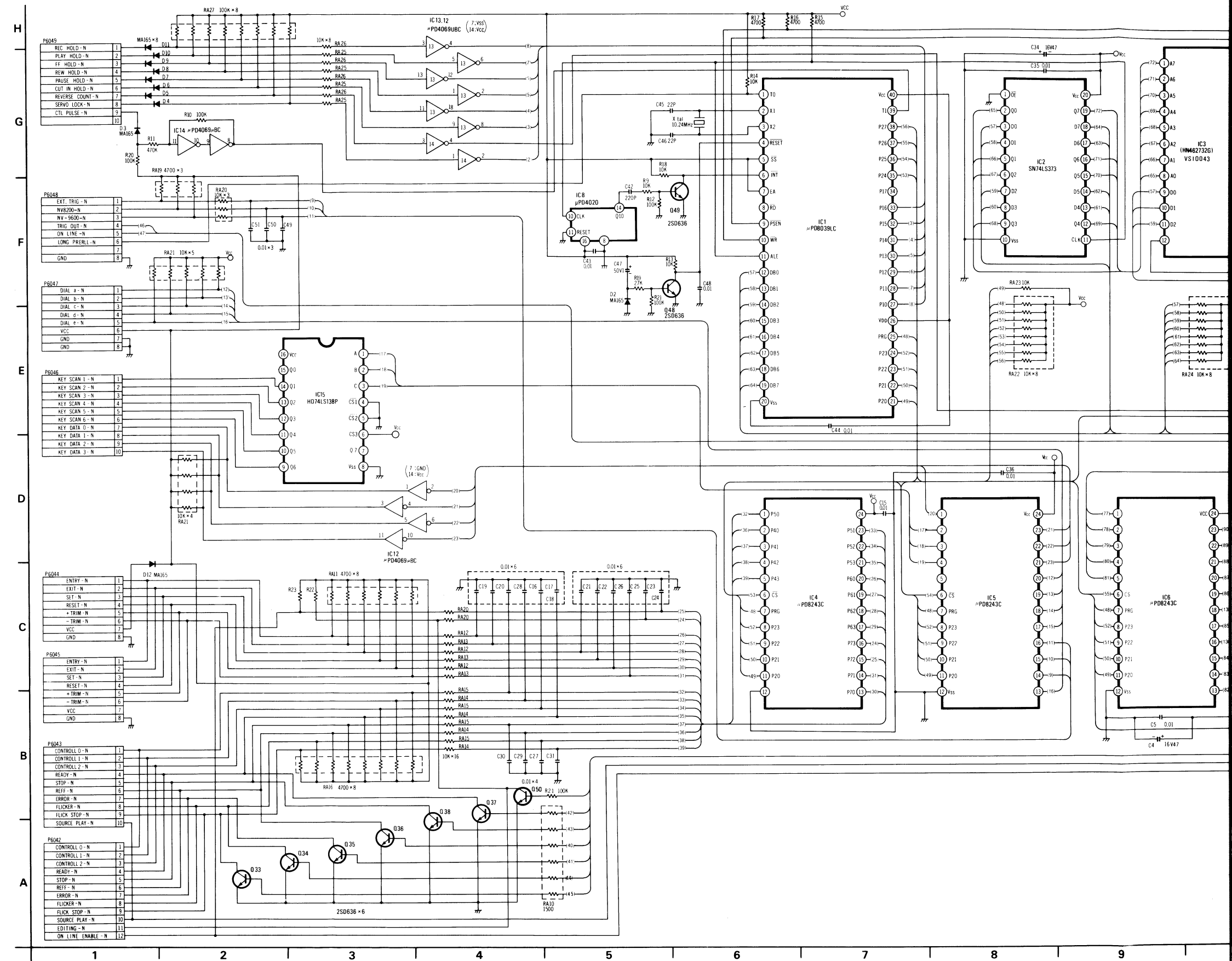


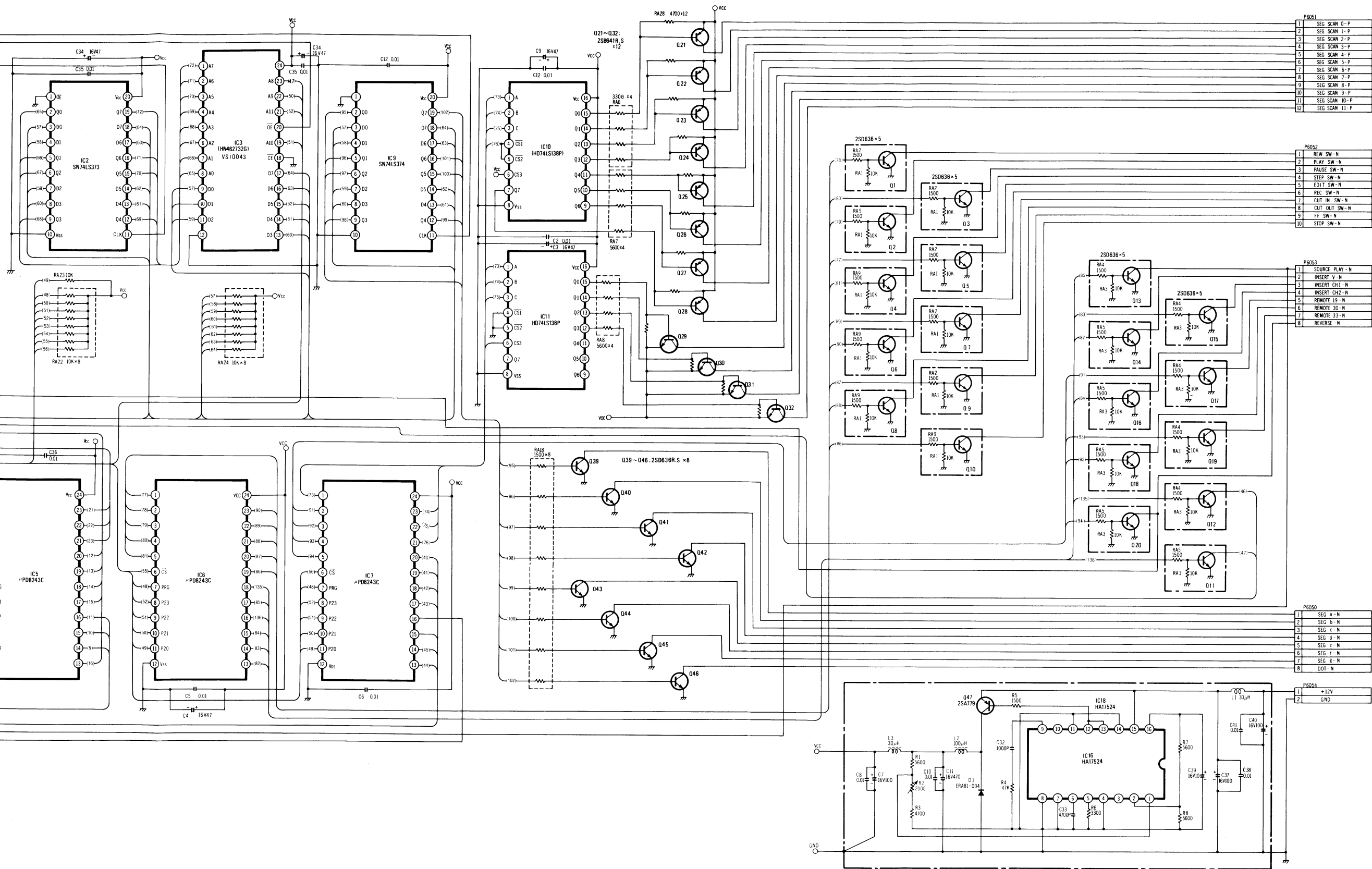


CPU BOARD

CPU SCHEMATIC DIAGRAM

CPU	
Q1	D-2
Q2	D-2
Q3	D-2
Q4	D-2
Q5	D-2
Q6	D-2
Q7	D-2
Q8	D-2
Q9	D-2
Q10	D-2
Q11	D-2
Q12	C-2
Q13	C-2
Q14	C-2
Q15	C-2
Q16	C-2
Q17	C-2
Q18	C-2
Q19	C-2
Q20	C-2
Q21	C-2
Q22	B-2
Q23	B-2
Q24	B-2
Q25	B-2
Q26	B-2
Q27	B-2
Q28	B-2
Q29	B-2
Q30	B-2
Q31	B-2
Q32	B-2
Q33	B-3
Q34	B-3
Q35	B-3
Q36	B-3
Q37	B-3
Q38	B-3
Q39	C-3
Q40	C-3
Q41	C-3
Q42	C-3
Q43	C-3
Q44	C-3
Q45	C-3
Q46	C-3
Q47	D-4
Q48	C-6
Q49	C-5
Q50	B-3
IC1	B-5
IC2	C-4
IC3	C-4
IC4	B-4
IC5	B-4
IC6	D-3
IC7	C-3
IC8	C-5
IC9	C-4
IC10	C-2
IC11	B-2
IC12	A-4
IC13	B-6
IC14	A-5
IC15	A-5
IC16	D-4





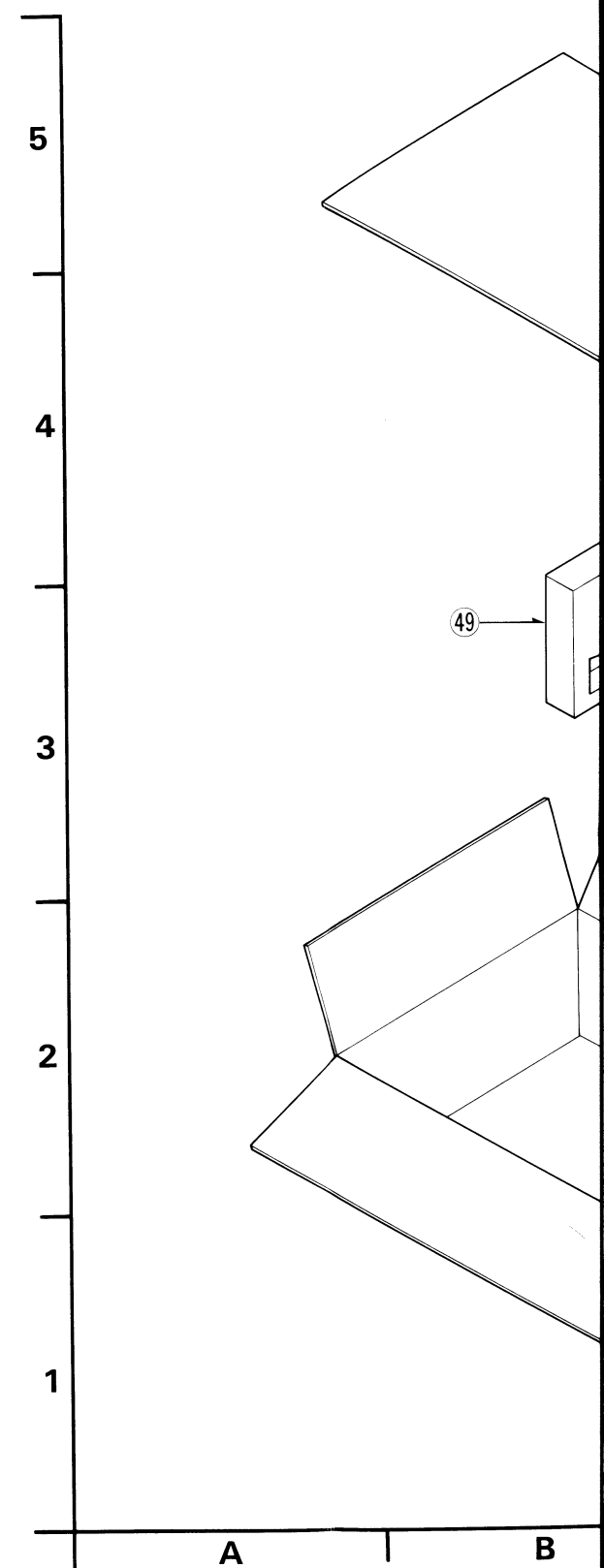
This exploded view diagram illustrates the assembly of a telephone console. The components are numbered 1 through 45, with some parts having multiple instances. The assembly is organized into sections labeled A through J along the bottom and 1 through 8 along the left side.

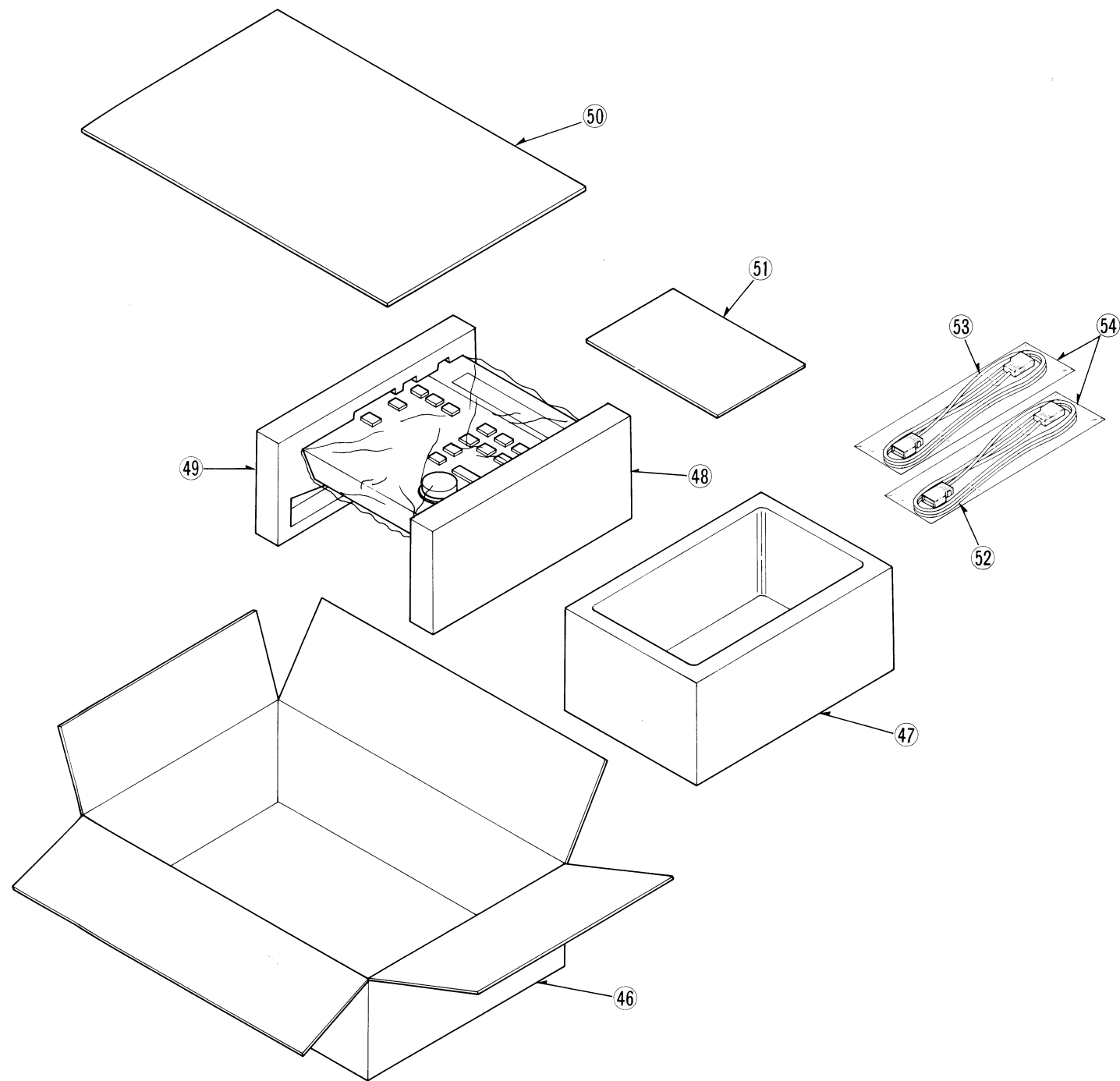
Key Assembly Instructions:

- Part 4:** Attached with ESE285.
- Parts 41:** Attached with VJP1266.
- Part 11:** Attached with VJP63.

Component Details:

- Part 1:** Main console plate with a display area.
- Part 2:** Base plate.
- Part 3:** Front panel with buttons and indicators.
- Part 4:** Circular component, likely a speaker or microphone.
- Part 5:** Mounting bracket.
- Part 6:** Mounting bracket.
- Part 7:** Mounting bracket.
- Part 8:** Mounting bracket.
- Part 9:** Mounting bracket.
- Part 10:** Mounting bracket.
- Part 11:** Mounting bracket.
- Part 12:** Mounting bracket.
- Part 13:** Mounting bracket.
- Part 14:** Mounting bracket.
- Part 15:** Mounting bracket.
- Part 16:** Mounting bracket.
- Part 17:** Mounting bracket.
- Part 18:** Mounting bracket.
- Part 19:** Mounting bracket.
- Part 20:** Mounting bracket.
- Part 21:** Mounting bracket.
- Part 22:** Mounting bracket.
- Part 23:** Mounting bracket.
- Part 24:** Mounting bracket.
- Part 25:** Mounting bracket.
- Part 26:** Mounting bracket.
- Part 27:** Mounting bracket.
- Part 28:** Mounting bracket.
- Part 29:** Mounting bracket.
- Part 30:** Mounting bracket.
- Part 31:** Mounting bracket.
- Part 32:** Mounting bracket.
- Part 33:** Mounting bracket.
- Part 34:** Mounting bracket.
- Part 35:** Mounting bracket.
- Part 36:** Mounting bracket.
- Part 37:** Mounting bracket.
- Part 38:** Mounting bracket.
- Part 39:** Mounting bracket.
- Part 40:** Mounting bracket.
- Part 41:** Mounting bracket.
- Part 42:** Mounting bracket.
- Part 43:** Mounting bracket.
- Part 44:** Mounting bracket.
- Part 45:** Mounting bracket.





A B C D E

MECHANICAL REPLACEMENT PARTS LIST

Model No. NV-A505-E/-EN

Notes:

1. Be sure to make your orders of replacement parts according to this list.
2. " " in Remarks column indicates new parts.



Item No.	Drawing No.	Description	Pcs/ Set	Availability	Part No.	Remark
1	(1)	Top Panel	1		VYP0632	E-Type
					VYP0683	EN-Type
4	(1)	Knob	1		VGT0226	
5	(1)	Rotary Switch	1		ESE285	
6	(1)	Rear Panel Angle	1		VMA5797	
7	(1)	Rear Panel	1		VGK1065	
8	(1)	1 Pin Jack	2		VJJ0018	
9	(1)	34 Pin Connector	1		VJP63	
10	(1)	20 Pin Connector	1		VJS1265	
11	(1)	Switch	1		ESD32168	
12	(1)	Switch	1		ESD32169	
13	(1)	Rivet	4		NRP345	
14	(1)	20 Pin Connector	1		VJP1266	
15	(1)	Bottom Case	1		VYK0404	E-Type
					VYK0405	EN-Type
16	(1)	Stand Holder Angle	2		VMA5793	
17	(1)	Stand	1		VMA5798	
18	(1)	Stand Holder	2		VGQ0292	
19	(1)	Rubber Foot	2		VKA0024	
20	(1)	Rubber Foot	2		VKA0025	
21	(1)	RESET Button	1		VGK1063	
22	(1)	Cushion	18		VMTO056	
23	(1)	CPU P.C.B Ass'y	1		VEP00847A	
24	(1)	DISPLAY P.C.B Ass'y	1		VEP00848	
25	(1)	Circuit Support	2		LCBS16NS	
26	(1)	Button Holder (C)	1		VGU0328	
27	(1)	Button Holder (B)	1		VGU0333	
28	(1)	Button Holder (A)	1		VGU0332	
29	(1)	L.E.D Cover	12		VGL0068	
30	(1)	Circuit Support	1		LCBS10NS	
31	(1)	AUDIO CH1, CH2, VIDEO, EDIT, CUT IN CUT OUT, +, -, ONLINE, PREROLL BUTTON	10		VGK1052	
32	(1)	REW Button	1		VGK1053	
33	(1)	FF Button	1		VGK1054	
34	(1)	PLAY Button	1		VGK1055	
35	(1)	PAUSE Button	1		VGK1056	
36	(1)	REC Button	1		VGK1057	
37	(1)	STOP Button	1		VGK1059	
38	(1)	SEARCH Button	1		VGK1061	
39	(1)	Screw	6		XSN26+10	
40	(1)	Screw	4		XSN3+6FZ	
41	(1)	Screw	4		XTV3+10JFUR	
42	(1)	Screw	2		XTV3+10GFZ	
43	(1)	Screw	4		XSN3+10FZ	
44	(1)	Screw	16		XTV3+10G	
45	(1)	Washer	2		SPN24	
46	(2)	Packing Case	1		VPG1069	E-Type
					VPG1070	EN-Type
47	(2)	Cushion (Center)	1		VPN0716	
48	(2)	Cushion (Right)	1		VPN0712	
49	(2)	Cushion (Left)	1		VPN0713	
50	(2)	Top Pad	1		VPN0714	
51	(2)	Fan Bag	1		VQF0807	E-Type
					VQF0808	EN-Type
52	(2)	34 Pin Connector	1		VJA0149	
53	(2)	20 Pin Connector	1		VJA0179	
54	(2)	Polyethylene Bag	2		XZB32X35B05	

ELECTRICAL REPLACEMENT PARTS LIST

Model No. NV-A505-E/-EN

Note:

1. Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified by shade have special characteristics important for safety. When replacing any of these components, use only the original ones.
3. Unless otherwise specified:
All resistors are in OHMS (Ω), 1/4w, $\pm 5\%$ carbon, K=1,000, M=1,000K.
All capacitors are in MICROFARADS (μ F), $\pm 10\%$ except electrolytic $\pm 30\%$, -10% ; P= μ F.
All coils are in MICROHENRIES (μ H), m=10³.
4. C.B.A: Circuit Board Assembly.
5. C.B: Circuit Board.

Ref. No.	Part No.	Part Name & Description	Pcs / Set	Remarks
		CPU BOARD		
		(VEP00847A)		
		Integrated Circuits		
		8 bit Microprocessor	1	
IC1	μ PD8039LC		1	
IC2	SN74LS373N	TTL D-Type Latch	1	
IC3	VSI0043	EP ROM	1	
IC4-7	μ PD8243C	I/O	4	
IC8	μ PD4020C	C-MOS Counter	1	
IC9	SN74LS374N	TTL D-Type FF	1	
IC10,11	HD74LS138P	TTL 3 to 8 Decoder	2	
IC12-14	μ PD4069UBC	C-MOS Inverter	3	
IC15	HD74LS138P	TTL 3 to 8 Decoder	1	
IC16	HA17524P	Voltage Regulator	1	
		Transistors		
Q1-20	2SD636 (R,S)		20	
Q21-32	2SB641 (R,S)		12	
Q33-46	2SD636 (R,S)		14	
Q47	2SA779		1	
Q48-50	2SD636 (R,S)		3	
		Diodes		
D1	ERA81-004		1	
D2-12	MA165		11	
	or MA150			
		Resistors		
R1	ERD25VJ562	5.6K	1	
R2	EVMK4GA00B23	Variable	2K	1
R3	ERD25VJ472	4.7K	1	
R4	ERD25TJ473	47K	1	
R5	ERD25VJ152	1.5K	1	
R6	ERD25VJ332	3.3K	1	
R7,8	ERD25VJ562	5.6K	2	
R9	ERD25VJ103	10K	1	
R10	ERD25VJ474	470K	1	
R11	ERD25VJ103	10K	1	
R12	ERD25VJ104	100K	1	
R13,14	ERD25VJ103	10K	2	
R15-17	ERD25VJ472	4.7K	3	
R18	ERD25VJ103	10K	1	
R19	ERD25VJ273	27K	1	
R20,21	ERD25VJ104	100K	2	
R22,23	ERD25VJ472	4.7K	2	
R24	ERD25VJ152	1.5K	1	
		Resistors Arrays		
RA1	EXBP810103	10K x 10	1	
RA2	EXBT45152	1.5K x 5	1	
RA3	EXBP810103	10K x 10	1	
RA4,5	EXBT45152	1.5K x 5	2	
RA6-8	EXBT44332	3.3K x 4	3	
RA9	EXBT45152	1.5K x 5	1	
RA10	EXBT46152	1.5K x 6	1	
RA11	EXBP86472	4.7K x 6	1	
RA12,13	EXBT43103	10K x 3	2	
RA14,15	EXBT44103	10K x 4	2	

